

COMMITTEE WORKSHOP
BEFORE THE
CALIFORNIA ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of:)
)
Informational Proceeding and)
Preparation of the 2005 Integrated) Docket No.
Energy Policy Report) 04-IEP-01-C
)
Re: California/Mexico Border)
Energy Issues)
_____)

SAN DIEGO ASSOCIATION OF GOVERNMENTS

BOARD ROOM

401 B STREET

SAN DIEGO, CALIFORNIA

TUESDAY, DECEMBER 14, 2004

9:35 A.M.

Reported by:
James Ramos
Contract No. 150-04-002

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMISSIONERS PRESENT

John Geesman, Presiding Member

James Boyd, Associate Member

ADVISORS PRESENT

Michael Smith

STAFF and CONTRACTORS PRESENT

Tim Olson

Eileen Allen

ALSO PRESENT

CoChairs, San Diego Border Area Energy Issues Group

Crystal Crawford, Deputy Mayor
City of Del Mar

Lydia Antonio, representing Mexican Consul
General; City of San Diego

Patricia McCoy, Mayor Pro Tem
City of Imperial Beach

Edward Schafer
San Diego Association of Governments

Kim Collins
San Diego State University

Federico Ruanova, Attorney
Baker & McKenzie

Alan Sweedler
San Diego State University

David L. Geier
San Diego Gas and Electric Company
Sempra Energy

ALSO PRESENT

Manuel Garcia Lepe
Baja, California, Mexico State Government

Abelardo Borquez
Comision Federal de Electricidad (CFE)

Steve Hoffman
NRG Energy Center San Diego LLC

Robert F. Swette
Swette Associates
Consultant to Western Governors Association

Vincent J. Signorotti
CalEnergy Operating Corporation

Bill Powers
Powers Engineering
Border Power Plant Working Group

Carla Garcia Zendejas, Attorney
Border Power Plant Working Group in Tijuana

Carl A. Zichella
Sierra Club

Araceli Samaniego
Grupo de Ecologia y Conservacion de Islas, A.C.

Gabriel M. Ruiz
Air Resources Board
California Environmental Protection Agency

Brad Poiriez
Imperial County Air Pollution Control District

Robert Reider
San Diego Air Pollution Control District

Francisco Juan D  ez
United States Environmental Protection Agency

Arthur L. Coe
California Regional Water Quality Control Board
San Diego Region

ALSO PRESENT

Hector J. Vanegas
SANDAG

Orlando B. Foote, Attorney
Horton, Knox, Carter & Foote
representing Imperial Irrigation District

Juan Carlos Sandoval
Imperial Irrigation District

Skip Froelich
Sustainable Earth Enterprises

Scott Anders
San Diego Regional Energy Office

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P R O C E E D I N G S

9:35 a.m.

PRESIDING MEMBER GEESMAN: I want to welcome all of you to today's workshop. I'm John Geesman, the Presiding Member of the California Energy Commission's 2005 Integrated Energy Policy Report. Joining me today is my colleague, Commissioner Jim Boyd, who is the Associate Member of our Integrated Energy Policy Report Committee.

In addition we've invited the Co-Chairs of the San Diego Border Area Energy Issues Group to join us on the dais, Crystal Crawford, the Mayor of the City of Del Mar; Patricia McCoy, the Mayor Pro Tem of Imperial Beach; and Lydia Antonio, representing the Mexican Consul General and San Diego.

I'd like to recognize two representatives in the audience from State Senator Denise Duchene's Office, Jonathan Hardy and Javier Avila. I would also like to thank the San Diego Association of Governments for hosting the workshop site and helping the Energy Commission to organize this event.

Every two years the California Energy Commission prepares an energy report outlining

1 energy trends, issues and recommendations for the
2 Governor and Legislature to consider in creating
3 or modifying laws, executive orders, policies and
4 programs.

5 In our 2003 report we recognized the
6 growth trends and other factors in the
7 California/Mexico border region present an
8 increasingly significant challenge that influences
9 energy demand, plans for new infrastructure and
10 potential impacts on the economy and the
11 environment.

12 In our report this past fall updating
13 the 2003 report the Energy Commission conducted a
14 hearing in San Diego; and many of you suggested
15 that we return to focus attention on the energy
16 issues in the San Diego, Imperial County and
17 adjacent areas of Baja, California.

18 Commissioner Boyd and I are committed to
19 making this a focal point of the 2005 energy
20 report which will be adopted by the Energy
21 Commission in November of next year. We will be
22 back here several times gathering information.

23 Our workshop today is the first step in
24 a year-long effort to gather information, listen
25 to your insights and comments, evaluate issues and

1 seek recommended action. As a result, California/
2 Mexico border energy issues will be a key element
3 of the policies considered by the Governor and the
4 Legislature in 2005.

5 We look forward to your participation as
6 we proceed with our workshop and our future
7 activities.

8 Commissioner Boyd.

9 COMMISSIONER BOYD: Thank you. It's
10 indeed a pleasure for me to be here. And, again,
11 I add to Commissioner Geesman's welcome my welcome
12 to all of you.

13 As Commissioner Geesman indicated, in
14 the 2003 Integrated Energy Policy Report or IEPR,
15 as we say for short, which was the first we ever
16 did, which activity I was fortunate enough to
17 chair, we did identify this region as needing
18 special attention. But we weren't able to in
19 depth, which was the recommendation for the next
20 report. And that brings us here today.

21 Furthermore, I've been fortunate to be a
22 member of the local border energy issues group
23 representing the Energy Commission for at least
24 the past couple of years. And to round that out,
25 for also a little more than two years now I've

1 been California's representative to the Board of
2 Governors energy worktable, which energy worktable
3 was just created a little over two years ago, in
4 recognition of the importance of the energy issue.

5 And I was fortunate enough to co-chair
6 that effort for the past two years, that work
7 table effort. And just stepped down from that and
8 yielded the U.S. side of the gavel to a
9 representative from the State of Texas. However,
10 my co-chair for the past year, Manuel Garcia Lepe,
11 who's on the agenda for today -- I don't see him
12 in the room just yet -- he still remains as the
13 co-chair representing the States of Mexico on that
14 group.

15 And we had a delightful year working
16 together in recognition of the importance of this
17 area and the border to the U.S. and Mexico.

18 Here we're concentrating just on the
19 border we share with Baja, and the border that
20 certainly people down here share very much with
21 your neighbors to the immediate south. And are
22 quite interested and concerned with the energy
23 needs of the entire region.

24 As I've said before I like to try to
25 think of this as others do, as a borderless area.

1 And try to deal with the population, topography,
2 climatology and what-have-you in that way, in
3 addressing energy and environmental and air
4 quality issues and what-have-you.

5 So we look forward to learning today
6 even more about the area and, of course, thinking
7 of plans that we might include in this report that
8 can help benefit all of us working in this
9 binational region down here.

10 So, thank you very much.

11 PRESIDING MEMBER GEESMAN: Thank you.

12 Mayor Crawford.

13 DEPUTY MAYOR CRAWFORD: Thank you very
14 much. Mr. Geesman, I'm the Deputy Mayor right
15 now. I'll be mayor next year. But thank you very
16 much for elevating me in anticipation of that.

17 It's indeed my pleasure to join you this
18 morning and to thank the California Energy
19 Commission for its interest in the border region.
20 And certainly your efforts at being here to hold
21 this public hearing today. We very much
22 appreciate that. And, of course, anything else
23 that SANDAG can do to assist you in this effort,
24 please feel free to let us know.

25 I've certainly appreciated Commissioner

1 Boyd's participation in the border energy issues
2 group. And many of the speakers that are on the
3 agenda for today, of course, are participants in
4 that group. And so, it's indeed fortuitous that
5 we have this opportunity to present additional
6 information during the course of this public
7 hearing.

8 So, thanks, again, to all of you,
9 including Mike Smith, for his interest and his
10 attendance at those meetings. And I look forward
11 to hearing from the speakers.

12 PRESIDING MEMBER GEESMAN: Thank you.
13 Why don't we get started with our program, then.
14 Tim, would you like to lead off.

15 MR. OLSON: Yes, thank you very much.

16 PRESIDING MEMBER GEESMAN: Excuse me,
17 Tim, I'm going to interrupt you. I was reminded
18 by the Mayor of something, an oversight on my
19 part. To my left is my Advisor, Mike Smith, who's
20 well known to many people down here, since he
21 represents me oftentimes in meetings you have.
22 So, thank you, Mayor, for reminding me of my
23 negligence.

24 MR. OLSON: Thank you, Commissioners.
25 My name is Tim Olson; I'm with the California

1 Energy Commission Staff. Today we have a pretty
2 full agenda through the whole day. We invited
3 some speakers in today to help give us a better
4 overview of some of the energy and environmental
5 issues in this region on this side of the border,
6 and also in Mexico.

7 Some of you may have heard many of these
8 discussions before. This is something that we
9 look at as the start of a nine-month or year-long
10 process in a timeframe to help us create some
11 possible recommendations to our Governor and
12 Legislature.

13 Through the day our agenda includes a
14 number of different discussions. To start out
15 this morning we're going to discuss some of the
16 economic and demographic trends that are pushing
17 what we think is significant growth in this area;
18 population; industrialization; other factors that
19 affect the economy and also the environment. And
20 our key factors in energy demand and supply.

21 We also, given that we're aware of
22 several different kind of problems that whether
23 it's cross-border decisions that have to occur,
24 whether it's a transmission line or LNG terminal
25 pipeline, or just air pollution that might cross

1 the border.

2 We've asked a speaker today to give us a
3 little bit of framework about how binational
4 decisionmaking can occur and some of the
5 challenges in making decisions, given that there
6 are different types of agencies, some
7 international or binational, some national, state
8 and local regional.

9 Later on this morning we're going to
10 have a discussion of some of the energy supply and
11 demand existing infrastructure, and also some of
12 the plans for the future.

13 And after lunch we will discuss what
14 we're calling some of the economic opportunities
15 and challenges of introducing what we call the
16 green energy, the energy efficiency, renewable
17 energy, maybe some discussion about combined heat
18 and power.

19 And then at the end of the day, the last
20 part of the day we have a pretty significant
21 session just on environmental impacts that are
22 either existing now or we anticipate here as a
23 result of some of the development.

24 So, I'd like to -- if you didn't get a
25 copy of the agenda there's some over on the table

1 here. If you're interested in speaking today, we
2 have the series of speakers throughout the day,
3 and then at around 3:00, 3:30 we will have the
4 session open to public comment.

5 If you would like to speak during that
6 there's a sign-up card looks something like this.
7 You can also just ask us, give me your business
8 card and we'll try to put you in an order that
9 you've asked to speak.

10 Also, I'd like to note that we have
11 other staff here that can be very helpful to you
12 from the Energy Commission, also from SANDAG.
13 Jennifer Williams is back over at the computer
14 here; Eileen Allen and Jim Adams at the desk here;
15 and Sandra Fromm over here is one of the project
16 managers for the overall report. And there's
17 another person, Monica Schwebs is right here from
18 our legal office. If you have any questions you
19 can talk to any one of us and we will try to
20 respond to you.

21 We also have a list of questions on the
22 back table here, the topics and some of the things
23 that we were hoping to get addressed if not today,
24 over the next nine months to a year, as we're
25 developing our report.

1 There's some key things that we're
2 looking at. We want to know, and if you don't
3 mind I'm going to read some of these, just
4 paraphrase.

5 There are four major questions we're
6 looking at. What mutually agreeable steps can be
7 taken to reduce energy demand and increase energy
8 production to meet the needs of California and
9 Baja, California.

10 Second question is what mechanisms can
11 California and Mexico explore to coordinate the
12 planning and development of sustainable energy use
13 and infrastructure to meet future growth in the
14 border area.

15 Number three, how can local, state and
16 national permitting processes be coordinated in
17 terms of timing, environmental standards and
18 mitigation goals.

19 And number four, how can California
20 engage in the U.S. and Mexican Governments,
21 international organizations, local governments,
22 community groups and private enterprise to help
23 resolve energy-related environmental problems such
24 as air pollution and greenhouse gas emissions,
25 traffic congestion, water supply and environmental

1 justice in the border region.

2 There are a lot of issues there. I'm
3 not sure if we're going to be able to address
4 those in one year. But we're interested in your
5 insights and your comments on those, or other
6 questions you think need to be addressed.

7 I think at this point, Commissioners,
8 I'd like to start the first speaker in the session
9 on demographic and economic overviews. The first
10 speaker is Ed Schafer with the San Diego
11 Association of Governments. And he's going to
12 give an overview of some of the demographic trends
13 in this region that SANDAG covers in their
14 territory.

15 So, Mr. Schafer.

16 DR. SCHAFFER: Thank you very much.
17 Today I'd like to spend a little time just talking
18 about some of the regional trends that we're
19 observing now in the San Diego region with regard
20 to population. I'll also talk a little bit about
21 traffic, basically focusing on vehicle miles
22 traveled, obviously a huge user of energy in our
23 region. Also one of the focuses of the activities
24 in the -- by SANDAG.

25 All right, this first slide I'm going to

1 show you is what we expect to see happening in
2 terms of population between now and 2030. I've
3 broken it out by ethnicity. Have total
4 population, white population, hispanic, asian and
5 other, and then black or african-american.

6 And as you can see on the total
7 population we expect to see a continue rise, a
8 fairly steady increase in the population from
9 about 2.8 million to about 3.9 million between now
10 and 2030.

11 Now, interestingly, if you look at the
12 growth in population you'll see that it's
13 concentrated primarily within the hispanic
14 population, subpopulation and the asian and other
15 subpopulations. We actually expect to see a
16 slight decline in the whites and a fairly stable
17 black population in the region over this period of
18 time.

19 The reason that we're seeing these
20 differential growth rates by ethnicity has to do
21 with the fact that we have hispanic birthrates
22 tend to be higher than the birthrates of others,
23 and the same among asians; while the white
24 population, we actually have observed a out-
25 migration of whites between '95 and 2000.

1 So between that period of time we
2 actually had more white San Diegans move out of
3 the region than move into the region.

4 This slides shows you that. Fertility
5 rates are higher for hispanics. And that these --
6 also the hispanic age structure is younger. Then
7 also we had this out-migration of nonhispanic
8 population during the latter '90s.

9 This is a slide that's going to show you
10 how the age structure is expected to change over
11 the next 25 years. Now, you know, you look around
12 and you see who lives in San Diego today. And the
13 people who -- if you come back 30 years, if you're
14 still alive, if you're lucky to still be alive,
15 and you look then you're going to see a much
16 different population.

17 What this shows you is that the age
18 composition, which is the blue lines, in -- yeah,
19 the blue line's 2000, and then the age composition
20 in 2030 is the red lines. You can see the biggest
21 increases are in the older age groups. Huge
22 shifts in population. And this is because of the
23 aging of the population.

24 So in 2030 the population of this
25 region, the San Diego region, is going to look

1 like the population of Florida today. So, you're
2 going to see a big shift in the age structure of
3 this population.

4 The reasons behind that, as I said, the
5 aging of the baby boom, those born between 1946
6 and 1964, a large part of our population. And
7 then again the decline in hispanic fertility
8 rates. As hispanic fertility rates decline over
9 time, we're going to be putting fewer and fewer
10 and fewer young people into the population. So
11 we're going to see this big shift in the age
12 structure.

13 Now, this next slide gives you some
14 historical view of how our population has been
15 growing since 1970. Population, housing and jobs
16 has been growing since 1970, and how we expect to
17 see it grow over the period 2000 to 2030.

18 Also I have on this slide a graph that
19 depicts, or a line that depicts the growth in
20 vehicle miles traveled. Basically traffic, how
21 traffic has grown in this region recently since
22 1980, and then what we expect to see happening out
23 to 2030.

24 And as you can see, housing and jobs,
25 the growth of those two are fairly constant, very

1 similar to each other. We expect to see about a
2 half a million jobs added to the economy between
3 2000 and 2030. We expect to see somewhere between
4 300,000 to 400,000 new homes added to the region,
5 new houses. That will be dependent upon our land
6 use plans and how we adapt our land use plans to
7 the increased demand for housing.

8 As you can see, population is growing a
9 little bit quicker. It's growing at a little bit
10 faster rate than jobs and housing. And then
11 finally if you look at traffic, vehicle miles
12 traveled, it's really jumped dramatically during
13 the '80s and it continues to increase at a fairly
14 rapid rate out into the future.

15 PRESIDING MEMBER GEESMAN: Do you happen
16 to know what your price assumption for gasoline
17 was in making that projection?

18 DR. SCHAFER: No, I don't. I couldn't
19 tell you that. But, I mean, there was a fairly, I
20 know it was a fairly sort of standard price
21 assumption.

22 PRESIDING MEMBER GEESMAN: I will say
23 when we have done those projections I think in
24 2002/2003 we failed to capture the large increase
25 in gasoline prices. Not yet clear whether that

1 will have any impact on vehicle miles traveled,
2 though.

3 DR. SCHAFER: Right. I think also that
4 will be dependent upon what happens with income,
5 too. So, if they both go up about the same rate,
6 then probably it won't have much effect. If one
7 goes up and the other one doesn't, it probably
8 will have.

9 This gives you an idea, basically
10 showing you that what I'm trying to show here is
11 that even though we continue to grow, the pace of
12 growth is beginning to slow down. For instance,
13 if you look at 1980 to 2000 population grew by
14 about 2.5 percent a year; jobs by about 3.9
15 percent; income 1.3 percent a year; and then
16 vehicle miles traveled, VMT, 5.2 percent a year.

17 If you look at what we're expecting into
18 the future population growth is about -- the rate
19 of growth is about half, 1.2 percent a year; jobs
20 about 1.1 percent; income, we see it as remaining
21 pretty constant over the next 30 years, about 1.1
22 percent. And then VMT, we see it dropping down to
23 about 1.6 percent a year.

24 This gives you an idea of what we expect
25 to see decade-by-decade in terms of these

1 variables, 80 to 90 we can see that the VMT was
2 rapidly growing, followed by jobs, population and
3 income was going at the slowest pace.

4 Then 90 to 2000 everything began to sort
5 of like level off, began to stabilize a little
6 bit. And we expect that stability between these
7 various rates of growth of these different
8 variables to be, you know, much more consistent
9 across these variables into the future.

10 And in my conclusion what do I see
11 happening. Well, I think, you know, we can expect
12 to see continued growth, but at a slower pace.
13 And we will see this growth in population, jobs,
14 income to some extent, and then vehicle miles
15 traveled.

16 However, we'll also see a very different
17 age composition of the population by 2030. Much
18 different than what we have now. How that will
19 affect energy use I'm not really sure.

20 If you look at some age characteristics
21 of energy use you'll see like miles traveled tends
22 to drop off as people get older. So you might see
23 some lessening, or some mitigating impacts because
24 of the age of the population.

25 And then finally we expect to see a much

1 more diverse population by 2030. I'm not sure
2 that will have much of an impact on our energy
3 use, but certainly will change our population.

4 Mr. Chairman, would you like me to take
5 questions now or wait till the next presentation?

6 PRESIDING MEMBER GEESMAN: I think we
7 probably ought to wait.

8 DR. SCHAFER: Okay. Thank you very
9 much.

10 MR. OLSON: Thank you very much, Mr.
11 Schafer. Our next speaker is Kim Collins, who is
12 also a demographer working for -- she's with the
13 San Diego State University. And her area of
14 discussion here is the Imperial Valley, Imperial
15 County/Mexicali area.

16 And please welcome Kim Collins.

17 DR. COLLINS: Good morning; thank you
18 for the invitation to speak with you today. I'm
19 not actually a demographer, but I'm a -- I guess
20 I'm a Public Administration/Sociologist.

21 But I do run a data center in the
22 Imperial Valley Mexicali region at Imperial Valley
23 campus. Looking at sort of just the 2000
24 population profile of Imperial Valley and
25 Mexicali, and looking at a couple of the trends in

1 growth, right now the Imperial Valley, or as of
2 2000 it was primarily a hispanic population with
3 about 72 percent hispanic population. And with a
4 white component of about 20 percent. Very small
5 african-american and asian.

6 As you can see in comparison with
7 California we have a younger population, between
8 the ages of zero and 24. And then the 25 to 64
9 range is a little bit lower percentagewise as
10 compared to the California averages.

11 Looking up population growth these are
12 numbers from the Southwest Center for
13 Environmental Research and Policy, or southwest
14 consortium. And looking at approximately right
15 now we have about 153,000 people in the county.
16 That's projected to double within the next 30, 40
17 years.

18 Looking at Mexicali population age
19 distribution, can't really do a racial breakdown
20 or ethnic breakdown because the Mexican government
21 does not collect that data. But looking at
22 Mexicali in comparison to Baja, California it has
23 slightly -- well, it's approximately the same, but
24 a slightly older population living in Mexicali in
25 comparison to the Baja, California averages.

1 Looking at sort of just a moderate
2 population projection for Mexicali, looking at the
3 population right now, about 850,000 to 900,000
4 people; but to increase to over 2 million people
5 by 2040. And these are the estimates from the
6 Mexican government.

7 Briefly just to look at some employment
8 statistics, I compared San Diego and Imperial
9 Counties. In 2003, as we have a large
10 agricultural economy, there's large fluctuations
11 from month to month with the unemployment
12 statistics, but in 2003 the average was 19.4
13 percent compared to San Diego's 4.3 percent.

14 Our total industry employment was 53,000
15 people. Of that, 22 percent was farm employment
16 and 78 percent was nonfarm. Compared to, you
17 know, San Diego's figures, which are quite larger
18 with a 1 percent farm employment and a 99 percent
19 nonfarm.

20 This -- I hope everyone can read it,
21 it's a little small, but this is for 2004 the
22 Imperial Valley nine month average industry mix.
23 As you can see we have a large proportion of our
24 employment in the government sector, which is
25 larger at 30 percent, almost a third of the

1 employment is in government. Agriculture is about
2 25 percent, which is similar to the 93 numbers, so
3 this is 94 compared to 93, so they're a little bit
4 off. And then also in trade, transportation and
5 utilities is the other large sector.

6 Looking at Mexicali employment, the
7 unemployment rates for Mexicali were about 1.5
8 percent, 1.4 percent as of last year. Looking at
9 their breakdown in the industry for 2003 we see
10 that a large proportion is in services.

11 The transportation sector or the maquila
12 sector assembly was about 23 percent. And a small
13 percentage was in ag. There's also a large
14 percentage, as you can see, in commerce.

15 I just thought briefly, because this is
16 one of the things that's really being talked about
17 out in the Imperial County is the growth in
18 housing currently. And these are numbers that
19 came out this year and we're discussing about all
20 the housing growth that's occurring in the county.

21 This year there was approximately 3000
22 new units. I know when we look at comparisons to
23 San Diego or other neighboring counties, it seems
24 very small. But for our community that's a lot of
25 new units to come in.

1 We're looking at a projection over the
2 next ten years to add about almost 22,000 new
3 units, just through the planning process and
4 trying to put in what they believe is the housing
5 demand currently in the Imperial County.

6 This shows sort of the median price and
7 the number of houses that were sold in Imperial
8 compared to other counties. One of the
9 assumptions right now is that a lot of the housing
10 growth is coming because of the median price.
11 It's much cheaper to buy a home, homes are much
12 cheaper in Imperial County than they are in their
13 neighboring communities. And so they believe
14 there's sort of a drive coming from San Diego and
15 other areas for cheaper land and available water
16 and such in the community.

17 And then my last slide is looking just
18 at the maquiladoras, and what I hope to show here
19 is mainly that, though the maquila industry in
20 Baja, California decreased over the past few
21 years, Mexicali was more stable in many of their
22 maquilas and in the employment. Even though it
23 decreased it didn't have such a large decline as
24 occurred in Tijuana and possibly other areas. And
25 so it's just a -- it looks as though it's a more

1 stable maquila market or multinational market
2 within Mexicali as opposed to all of Baja,
3 California.

4 And that's all. Thank you.

5 PRESIDING MEMBER GEESMAN: Thank you.

6 MR. OLSON: We're going to move on to
7 our next speaker. This will be in the topic area
8 of what I mentioned earlier, the binational
9 decisionmaking. And we're pleased to have
10 Federico Ruanova from the Baker and McKenzie law
11 firm, who will give an overview of some of the
12 challenges and perspectives.

13 MR. RUANOVA: Thank you. Good morning
14 and thank you for the kind invitation. One of the
15 topics I'm going to address this morning is how
16 much communication is there between the
17 governments of Mexico and local and state
18 governments, or the federal government of the
19 United States in the area of energy supply and
20 energy demand.

21 When we talk about energy in Mexico this
22 is somewhat a simple, an easy thing to do because
23 as opposed to the United States, you only have one
24 regulatory agency that oversees energy needs,
25 particularly power. And that is the Federal

1 Electricity Commission of Mexico. That was
2 nationalized in 1960 and remains the sole entity
3 in charge of providing power as a public service.

4 When the negotiations for the North
5 American Free Trade Agreement were underway it
6 became clear to the three parties that the area of
7 power generation and hydrocarbons was pretty much
8 going to be off limits. And that Mexico would
9 retain the right to produce power and to generate
10 this type of energy in Mexico.

11 And just because of Mexican
12 constitutional provisions, some of you may know
13 that article 27 of the Mexican Constitution grants
14 to the Mexican nation the exclusive or sole right
15 to exploit oil and hydrocarbons, and generate,
16 conduct, transform, distribute and supply power
17 for the purpose of rendering a public service.

18 The key word here is public service.
19 And this has been an issue of countless discussion
20 in the Mexican Congress these past years, what
21 constitutes a public service.

22 And as many of you may know there are
23 some constitutional challenges underway in Mexico
24 against the Energy Regulatory Commission for
25 granting permits to private companies for energy

1 production. And the rationale behind these
2 challenges is that the more conservative wing of
3 Congress interprets article 27 as to giving the
4 nation the sole and exclusive right to produce and
5 supply power regardless of whether or not it's a
6 public service or not. And then they challenge
7 the provisions of the federal law in the area of
8 power.

9 Having said that, I can tell you that
10 power generation infrastructure in 2002 is based
11 particularly on vapor or hydroelectric
12 conventional power plants. But Mexico is now
13 shifting to natural gas as the main source of fuel
14 for energy production.

15 There's widespread agreement that a high
16 energy demand offers opportunity for private
17 investment in the development of infrastructure.
18 But, again, there are these lingering legal issues
19 that need to be addressed.

20 Mexico needs to invest approximately \$34
21 billion during 2001 to 2006 to expand and
22 modernize its power generation infrastructure.
23 Just yesterday a Mexico City newspaper reported
24 that the CFE was not doing very well financially,
25 but nevertheless it was still granting a lot of

1 increased benefits to the very powerful CFE labor
2 union.

3 So some people in Mexico are
4 criticizing. One the one hand you have this
5 agency which is in financial dire straits and on
6 the other the union seems to continue to benefit
7 from concessions being made by this giant utility
8 company.

9 Now what does the federal law on
10 electricity generation provide? Well, basically
11 it was enacted in 1992. And this electric power
12 public service law was amended to allow private
13 investment to participate in the following
14 activities: self supply; cogeneration; small
15 production; independent power production, IPP; and
16 power import and export.

17 Probably the most popular ones are self
18 supply. We're seeing more and more companies
19 joining together to generate power for their own
20 needs. In fact, in the Baja, California region
21 there are some companies operating now in Mexicali
22 that are importing power under a self supply
23 scheme and a power import permit because they
24 appear to be saving a lot of money as they bring
25 power across from the United States as opposed to

1 buying it from the CFE. In some cases there's 30
2 percent reduction in their rates as a result of
3 this scheme.

4 And the other very popular one is the
5 IPP. As many of you know there are a number of
6 power plants operating in Mexico that now sell
7 power exclusively to the CFE, which in turn sells
8 it or distributes it to the general public.

9 The first power plant that began
10 operations is in Yucatan, the Medita 3 Power
11 Plant. And over the years we've been seeing more
12 and more of these IPP plants being constructed.

13 In this case the rationale being that
14 they help the CFE with power generation
15 infrastructure. But again, there's this lingering
16 question as to whether the challenge that has been
17 brought by some Senators from the PRI will be
18 successful. In this case they are going to go to
19 the Supreme Court to get a ruling as to whether
20 these schemes that are provided by the law are
21 constitutional or not.

22 So it's going to be very interesting,
23 particularly because we're approaching an election
24 year, as you know, 2006 there's going to be a
25 presidential election. And many of these topics

1 are going to be on the front page when the
2 campaigns are underway.

3 PRESIDING MEMBER GEESMAN: Are most of
4 those IPPs natural gas fired plants?

5 MR. RUANOVA: Yes, most of them are
6 turning to natural gas as a main source of fuel.

7 Now what needs to happen. If, in fact,
8 we're going to be opening up the energy sector to
9 private investment there's almost an overwhelming
10 majority that believes that you need a
11 constitutional amendment to finally lay to rest
12 this controversy about whether what these
13 companies are doing infringe the constitution.

14 As many of you know, the Fox
15 Administration attempted to introduce amendments
16 to article 27 to allow private investment in this
17 area. But since the Congress is now a majority
18 PRI and PRD, this initiative went nowhere. And
19 that's one of the interesting things about Mexico
20 being now a democracy. You can tell we're a
21 democracy because nothing is being done now in
22 Mexico.

23 (Laughter.)

24 MR. RUANOVA: It used to be that the PRI
25 president said we're going to do this, and the

1 Congress said yes and moved to the next sector.

2 But, those days are gone.

3 And the other thing is you have to amend
4 the law of public service of electrical energy.
5 But that, in itself, is not going to be
6 sufficient. You need a constitutional amendment
7 to avoid having these legal challenges, and to
8 have these private investments hindered in many
9 ways.

10 Now, cross-border issues. There are a
11 number of issues that affect the border. One is
12 deregulation versus government control. This is
13 at the heart of the discussion in Mexico. Is
14 deregulation a good idea or do we continue to rely
15 solely on government control. And you will find
16 that there are a number of opinions in favor of
17 deregulation, the most important of which is the
18 fact that companies tend to be more efficient when
19 it comes to power generation. And there could be
20 substantial savings for consumers.

21 On the other hand you have those that
22 argue that deregulation in many places has not
23 worked. That you have a crisis in many
24 jurisdictions. They point to the California power
25 crisis and they point to what happened in

1 Argentina. And what is still happening in Brazil.
2 And they believe that the government should
3 continue to control the power sector because this
4 is a strategic area.

5 Now, market versus social needs, again
6 this is a related topic. There is widespread
7 agreement that the CFE rates are very high. In
8 fact, so high that they need to subsidize power in
9 certain areas of Mexico. And that's one of the
10 reasons why some companies are joining together to
11 import energy from California because they're
12 saving money by doing this.

13 But again, there are others that would
14 say that if all of it was privatized, whether
15 there would be enough power to satisfy social
16 needs in Mexico. This is a very important issue.

17 And on the issue of whether a new
18 infrastructure on the Mexican side of the border
19 is justified, and particularly in Baja,
20 California, I point to the fact that Baja,
21 California is growing at a rate of 3 to 4 percent
22 a year, the population; that we expect to have an
23 additional 1.2 million people in Baja, California
24 by the year 2010. That would probably be a
25 conservative estimate.

1 So there is definitely a need for
2 increased infrastructure. And I know that there's
3 been a lot of controversy on the issue of the LNG
4 facilities coming into Baja, California. Some
5 people may argue that these facilities are being
6 built solely for the purpose of supplying
7 California or the United States. I wouldn't agree
8 with that assessment, although I would say that
9 part of the rationale behind these LNG facilities
10 would be to export power.

11 But if you take into consideration the
12 fact that Mexico's population is growing and that
13 Baja, California is one of the states that's
14 experiencing the biggest growth in its population,
15 it is clear that this infrastructure is needed in
16 Baja, California. And that natural gas is a
17 better energy source than fuel oil.

18 Obviously it's still not the best option
19 and I would agree that renewables are the best
20 option, but still these are expensive. Investment
21 needed to bring in solar panels or to invest in
22 renewables is still out of the reach, at least of
23 the Mexican Government, so the best option from an
24 environmental standpoint is today natural gas.
25 And that's one of the reasons why these LNG

1 facilities are being considered.

2 Now, what about the environmental
3 issues, which I know it's a very important topic.
4 I can think of three that are very important. And
5 one of the reasons why there was a lot, and there
6 continues to be, some objection and opposition to
7 the LNG facility has to do with the location.
8 Land use issues.

9 The fact that these facilities are being
10 built in areas that were unhindered, and that
11 could affect negatively the landscape, these are
12 important concerns. The environmental impact
13 permitting process is quicker in Mexico than what
14 you would have in the United States, but that's
15 not to say that it's not comprehensive.

16 As a result of amendments to the federal
17 environmental law in 1990 and the enactment of the
18 environmental impact regulations, now you have the
19 right to express yourself. And there are public
20 hearings to analyze the impacts that this type of
21 infrastructure projects may generate.

22 Obviously you don't spend one or two
23 years analyzing a project, but still you do have
24 the right to state your case and to listen to what
25 the government has to say or the project developer

1 has to say prior to issuing an environmental
2 impact permit.

3 One of the things that I've heard is
4 that over the years that the reason why the LNG
5 facilities being built in Baja, California as
6 opposed to California is because environmental
7 laws are less stringent in Mexico.

8 I can point out to the fact that Mexico
9 now has a new standard which is one that was
10 enacted by the Ministry of Energy, 1001, that
11 expressly establishes safety provisions for the
12 construction and operation of LNG facilities.

13 To the best of my knowledge I don't know
14 that there's anything similar in the United States
15 addressing LNG facilities. So, obviously before
16 you construct and you operate this type of
17 infrastructure, you would need to comply with this
18 standard.

19 And finally I come back to the issue of
20 renewables and climate change, which is a very
21 important topic. As you know, Mexico did ratify
22 the Kyoto Protocol on climate change. And
23 although it's not an annex 1 country, which means
24 that it does not have any reduction commitments,
25 it may benefit from investment from countries that

1 are considered annex 1 and that did ratify the
2 Protocol. Particularly the European Union.

3 There are some projects in the works in
4 which European companies are looking into
5 investing in Mexico in renewable projects, wind
6 power projects in the south of Mexico. And I
7 believe that in future years we will be seeing
8 more and more of this type of investment in the
9 form of the clean developing mechanism, the CDM.
10 And Mexico will probably benefit from this type of
11 cleaner infrastructure and this type of
12 investment.

13 I will be happy to answer any questions
14 you might have later on. Thank you very much.

15 PRESIDING MEMBER GEESMAN: Thank you.

16 MR. OLSON: Thank you very much for that
17 presentation. Just a couple items here. We have
18 a lot of people standing in the back here. You're
19 welcome to take some of these chairs at the
20 horseshoe if you wanted to sit down.

21 And also for those that are calling in
22 or listening in, we're hearing a little feedback.
23 If you wouldn't mind putting your phones on mute
24 that would be helpful, so that we're not listening
25 to your side conversations.

1 Our next session we're going to go into
2 some of the discussions of the energy supply/
3 demand picture and some of the challenges we're
4 seeing there.

5 And we have a series of speakers. We're
6 going to start off with Alan Sweedler who is with
7 the San Diego State University. He also is a key
8 participant in the San Diego Region Border Energy
9 Issues Group. And someone we've worked with for
10 many years on various topics. I think he's also
11 on one of our technical advisory committees for
12 our R&D program, too.

13 So, I'd like to welcome Alan Sweedler to
14 give first an overview. Then we'll have other
15 discussions on individual areas of the border
16 region.

17 DR. SWEEDLER: Thank you, Tim. And I'd
18 like to welcome you back to San Diego. We're very
19 very pleased to have you here again. And also the
20 reason that you're here, we're very very impressed
21 and pleased that you have decided to recognize the
22 importance of energy issues in the California/
23 Baja, California border region, and to include all
24 of this interesting data and information into the
25 Integrated Energy Policy Report. And we'd like to

1 help you as much as we can.

2 I'd like to start off by giving you a
3 little idea of what I'll be speaking about this
4 morning. I'll talk about the energy features of
5 the region, the infrastructure and the role of
6 renewable energy; and then I'll suggest some
7 recommendations for your consideration, which I
8 hope will lead to further discussion.

9 When we speak of the California/Baja,
10 California region we generally speak of the two
11 counties of San Diego and Imperial and five
12 municipios, as they're called in Mexico. There's
13 actually another one, Rosarito has been added, so
14 you have Tecate, Tijuana, Mexicali, Rosarito and
15 Ensenada as the border area.

16 It turns out that this delineation also
17 is consistent with the treaty between the U.S. and
18 Mexico, the LaPaz Treaty, which defines the border
19 region as 100 kilometers, 60 miles on both sides
20 of the border. It encompasses all of San Diego
21 and Imperial. So it very much falls under the
22 interest and responsibility of the Energy
23 Commission and other California agencies.

24 You've seen some population numbers.
25 There are some ranges, but they're beginning to

1 converge. I think the important thing to note
2 here is that by 2020 there will be 9 million
3 people living in the California/Baja, California
4 border region.

5 And another important fact to keep in
6 mind is by 2010 for the first time in the history
7 of this whole part of the world there will be more
8 people living on the Mexican side of the border
9 than on the U.S. side. So there will be a greater
10 population in Baja, California than there will on
11 the U.S. side of the border. And that will have
12 significant implications for energy use and
13 infrastructure.

14 Here are some of the main energy
15 features in what we call the binational region. I
16 prefer the term binational rather than border
17 because it suggests it's a whole region, not just
18 the line on the map.

19 San Diego and Tijuana are almost totally
20 dependent on energy resources from outside the
21 region. The Imperial and Mexicali region also is
22 heavily dependent on outside sources. And the
23 main exception, of course, is the geothermal
24 energy in both the Imperial and Mexicali Valleys.

25 Also Baja, California is isolated from

1 the main Mexican power and natural gas system.
2 This is unique in the Mexican system. However,
3 Baja, California is connected to California both
4 power and gas transmission systems. This gives
5 Baja, California and California a unique energy
6 relationship.

7 The current energy resources that are
8 used in the region are petroleum, of course, for
9 transportation; natural gas primarily for
10 industrial heating and power generation;
11 geothermal and uranium which is used to fuel San
12 Onofre.

13 There's a very small amount of solar,
14 wind and biomass and small hydro at the present
15 time.

16 PRESIDING MEMBER GEESMAN: Alan, is
17 there still the use of petroleum for electricity
18 generation --

19 DR. SWEEDLER: In Rosarito, a small
20 amount, but that's being shifted over. And that's
21 a very important thing to keep in mind because if
22 natural gas, which is a cleaner fuel than
23 petroleum at least, if that is not available to
24 the Mexican power plants their choices will be
25 petroleum, which, of course, is more detrimental

1 to the air quality.

2 Now, the demand for power in Baja,
3 California has been projected to grow at a very
4 high rate, 6 to 7 percent per year. But I want to
5 emphasize that some recent information suggests
6 that these growth rates might be lower, perhaps 2
7 to 3 percent. This information emerged at the
8 Border Energy Forum in Tijuana just a few months
9 ago, and Commissioner Boyd was present, as some
10 others were.

11 We have not yet been able to verify this
12 data, particularly to give sources. But it was
13 announced in a public session. And I've heard it
14 on various other occasions, as well.

15 So my point here for this hearing is to
16 suggest that this needs to be investigated more.
17 That the hard numbers for forecasts that I and
18 others have been using may need to be modified.
19 But we need to track that down. And we'll try to
20 do that in the next few months.

21 For San Diego growth rates for
22 electricity assumed in various energy fora much
23 lower, about 1.5 percent per year. Natural gas
24 the same thing; high growth rates, about 7 percent
25 primarily to fuel new power sources. But again,

1 the caveat if the power growth is less, the
2 natural gas forecast will also be less. And that
3 we need to determine with some more
4 investigation. In San Diego the growth rate
5 for natural gas is a little under 2 percent.

6 Also, I'd like you to keep in mind that
7 the Mexican numbers for growth do not necessarily
8 apply to Baja, California. They tend to be higher
9 in all areas in terms of population; in terms of
10 energy use.

11 The power sector and the fuels used for
12 transportation are the main sources of air
13 pollution in the whole binational region. And
14 therefore, anything to reduce pollution from those
15 sources, particularly renewables and conservation,
16 will also increase the air quality in the region.

17 And the environmental effects of energy
18 use are a shared problem, and therefore require a
19 shared solution. That's going to be a challenge
20 for California to determine how this can be
21 implemented. I'll have some recommendations at
22 the end.

23 Now, I want to show you some of the
24 actual data that's being used particularly by CFE.
25 These are not my slides; they're adapted. I've

1 taken them and I've worked some of the numbers to
2 make it a little easier to see. This is adapted
3 from a talk by Jesus Moya, who's from CFE, last
4 month in Tijuana.

5 You can see they're still predicting
6 fairly high growth rates here, 7.2 percent for
7 demand, and a capacity about 5.9 percent. These
8 are the latest numbers that are still being used
9 by CFE. And I think we need to work with CFE to
10 see if these numbers are still valid.

11 For the individual cities in Baja,
12 California, I'm going to focus on Baja, California
13 because I assume the Energy Commission has more
14 information about San Diego than they probably
15 know what to do with. But perhaps not about
16 Mexico.

17 You can see the different growth rates
18 in terms of peak load and the rates. And, of
19 course, Tijuana is the highest because it has the
20 highest population growth rate. But for all of
21 the main municipios in Baja, California, they're
22 quite high. But these data come from earlier
23 projections, so they may need to be modified.

24 Even though the growth rates may be
25 modified downward, I think no one can doubt that

1 there will be significant growth in demand for
2 energy in Baja, California. Whether it will be 7
3 percent, 5 percent or 3 percent we don't really
4 know now. And, of course, that's a big
5 difference. But it certainly will be higher than
6 it is in California.

7 Now I want to show you some of the
8 uncertainties here. This is a complicated graph,
9 but the main point here is these are annual growth
10 rates over from 1986 to 2004. You see they're all
11 over the map. So when you back forecast you don't
12 find nice smooth data and information.

13 The growth rates do vary. And the very
14 low growth rates that you see in 2002 and even
15 negative in 1993 has to do with the economic
16 downturn in Mexico. So that will be a very
17 important element in terms of growth.

18 One thing that is important to keep in
19 mind is that San Diego and California and Baja,
20 California have been sharing energy and already
21 have an integrated energy structure. You can see
22 the big blue graphs represent energy that Mexico
23 has exported to the U.S. We used to import about
24 10 to 15 percent of our energy supplies from
25 Mexico. That changed when their production could

1 not meet their demand. And so they began to
2 import, the red graphs.

3 When the new power plants came online in
4 Mexicali recently they began to export again. So
5 there's this back-and-forth relationship between
6 California and Baja, California in export and
7 import of energy. And that's likely to continue.
8 And our previous speaker pointed out the economics
9 is the driving factor here.

10 PRESIDING MEMBER GEESMAN: Now, that
11 earlier export from Mexico was primarily
12 geothermal?

13 DR. SWEEDLER: Yes. From Cerro Prieto,
14 and it went to Southern California Edison and
15 SDG&E.

16 PRESIDING MEMBER GEESMAN: And because
17 Mexican demand grew, those exports were stopped?

18 DR. SWEEDLER: They were no longer able
19 to meet their own domestic demand, and so not only
20 did they stop, but they had to import quite a bit.
21 Which is costly for Mexico.

22 PRESIDING MEMBER GEESMAN: I would
23 imagine that the California utilities were the
24 early customers for the development of that
25 resource.

1 DR. SWEEDLER: They were the early
2 customers. The resource was developed by CFE, and
3 SDG&E and SCE, Southern California Edison, were
4 the primary purchasers of that power in the '80s
5 and early '90s. I believe SDG&E at one point was
6 importing up to 10 percent of its power from CFE
7 from those fields.

8 Those fields now, by the way, are pretty
9 much max'd out.

10 COMMISSIONER BOYD: Excuse me, Alan.
11 You mentioned just a moment ago that the exports
12 were-- I mean the imports that they had to turn
13 to were costly. Yet an earlier speaker pointed
14 out the rates in Baja or in Mexico are quite high.
15 And actually importation -- there's deliberate
16 importation in order to get better prices.

17 DR. SWEEDLER: That's the case now. And
18 that's -- but don't forget, the rates are
19 subsidized. So what the customer pays is not what
20 the real rate is. And CFE has to, i.e., the
21 government, has to make up the difference.

22 The individual businesses can bypass CFE
23 by importing directly from Mexico. And if their
24 rates are not subsidized -- I'm sorry, if they
25 have to pay the full rate then they might benefit

1 by somewhat lower rates.

2 On the other hand, residential customers
3 don't have that option. And they have to buy
4 power from CFE. There's also what's called IPPs
5 where a U.S. or foreign entity or Mexican entity
6 can build a plant and sell all its power to a
7 particular entity, and none of it to CFE. But
8 they can't sell it to anyone else.

9 Natural gas, of course, has been
10 mentioned many times. This graph shows -- the
11 brown part is the plans in the future for use of
12 natural gas in Mexico. And you can see in the
13 past it was primarily fuel oil and geothermal.
14 But you can see that in the future the primary
15 fuel for power generation in Mexico according to
16 these plans from CFE will be natural gas. And
17 that's also the primary fuel in California.

18 Therefore, that becomes a main issue.
19 You can see that the geothermal is pretty much
20 max'd out of 720. Maybe it'll go up to 800
21 megawatts. And they can no longer expand that any
22 longer.

23 PRESIDING MEMBER GEESMAN: Most of that
24 natural gas would be in the form of LNG?

25 DR. SWEEDLER: No, they do not specify,

1 and it is not specified. And, of course, that's
2 one of the issues. LNG is unlikely to fuel --
3 well, let's look at the slide and you'll see why.

4 This is a composite of power plants and
5 gas systems in the region under discussion here.
6 And you can see that the main new power plants out
7 in the Valley, Mexicali, the InterGen and Semptra
8 plants, and the large Rosarito complex, Presidente
9 Juarez, south of the border here, they now receive
10 natural gas from U.S. sources via so-called Baja
11 Norte pipeline.

12 If any LNG facilities are prepared
13 they're unlikely to go into that pipeline because
14 of the flows. They'll mostly flow north. And
15 they could power the CFE plant in Rosarito, except
16 that they already are receiving enough gas for
17 that, and to convert to fully natural gas. About
18 80 percent of the facilities there are now natural
19 gas. They're still burning fuel oil and diesel in
20 that power plant.

21 Now, if you look at what regions these
22 serve, Mexico divides Baja, California up into two
23 regions, the zona costa and the zona valle, the
24 valley and the coastal zone.

25 On the coastal zone the main power is

1 generated by this 1300, 1400 megawatt facility at
2 Rosarito. And those are the different units. And
3 they're gas combustion combined cycle and also
4 fuel oil. There's a small plant about 50
5 megawatts in Ensenada.

6 Cerro Prieto, which is 720 megawatts,
7 feeds into the Mexican system. None of that is
8 exported. And then you have these new plants now
9 from Semptra and InterGen. The green arrow at the
10 top, one of those plants 600 megawatts, is only
11 for export. That's the Semptra plant.

12 The InterGen has two plants, and one of
13 those goes into CFE for Mexican consumption; and
14 another one is for export. So that's why those
15 export curves have been increasing that I showed
16 earlier, because of those two new power plants.
17 None of the power from the Rosarito plant is now
18 used for export purposes.

19 PRESIDING MEMBER GEESMAN: Are the two
20 zones linked?

21 DR. SWEEDLER: Yes, they are. There is
22 a transmission line that goes across the mountains
23 that allows Cerro Prieto to also feed into the
24 Tijuana region.

25 And there are two links across the

1 border which I think were shown in a previous
2 slide. California and Baja, California have major
3 power links across the whole U.S. border. Two 230
4 kilovolt lines that have a capacity of about 800
5 megawatts. And that's another issue that may need
6 to be addressed, particularly if renewables are
7 developed in Mexico. To get that power to its
8 demand centers may require some transmission
9 upgrades within Mexico and across the border.

10 This gives you an idea of who uses the
11 power in Mexico. You can see the big blue part
12 are mostly residential users. But the actual
13 consumption that takes place -- that's in terms of
14 customers -- but the actual consumption is mostly
15 the commercial and industrial sector, and the
16 residential sector.

17 So, of course, the customers are all the
18 residences. But businesses use a great deal of
19 power in Mexico. And that's why they are very
20 very concerned about the rates just as they are
21 here.

22 Now, I want to talk a little bit about
23 some work that's being done here on renewable
24 energy, because as I'll show later on, the real
25 long-term future for this region, at least in many

1 people's view, is reducing demand and increasing
2 renewable energy supplies.

3 So, in order to try and capture that a
4 study is going which involves several entities in
5 the region, SDSU, the San Diego Association of
6 Governments, San Diego Gas and Electric, San Diego
7 Regional Energy Offices, QualCom and some others,
8 NREL, help from the CEC, as well.

9 And we're developing a comprehensive
10 analysis of the technical resources for wind,
11 solar, biomass and geothermal in the California/
12 Baja, California region. These are some
13 preliminary results. These are maps from NREL
14 based on a visit that we took there recently.

15 And particularly the one on the sidebar
16 shows you the wind resource in Baja, California,
17 which is pretty high. They have very good wind
18 resource there. And that could be developed if
19 there were appropriate economic incentives, and
20 particularly if there were enough customers for
21 it.

22 This is a detail map now of San Diego/
23 Imperial region, because one of the issues related
24 to wind development and all renewables is
25 transmission access. The red line on the bottom

1 is the power link that goes through some very high
2 wind areas, which is very good because that's
3 where the resource is.

4 But there's also quite a bit of resource
5 that is not available because there's no
6 transmission. So one thing that's emerging from
7 this, and you can see it extends across the
8 border. And this is my point here. We can't
9 separate these regions by this artificial border
10 when it comes to air quality, environmental issues
11 and energy. They're intimately linked by
12 geography, and this is a good example.

13 The wind resource extends across the
14 border, clearly shown. And if that's going to be
15 exploited we need to recognize that fact. A good
16 deal of the wind resource in San Diego, itself, is
17 not available because there's no way to access it.
18 Which is typical also in Texas, as well.

19 We're looking at direct concentrated
20 solar conversion, large power plants in the 5
21 megawatts or higher, as well. And you can see the
22 yellow is a very good solar resource that
23 straddles San Diego, Imperial and Baja,
24 California.

25 These data are filtered already. That

1 means the land use has been taken out, the slopes,
2 et cetera. So this is what's really there, which
3 is different when you just look on a map and look
4 at the amount of solar energy. This is what can
5 be actually converted into electricity.

6 And, once again, it straddles the
7 border. And I can envision cross-border renewable
8 energy projects being very successful in this
9 region because of the high demand and the
10 excellent resource.

11 For geothermal you have a similar
12 situation. You have a high geothermal red in the
13 Imperial Valley. This doesn't have Mexico; our
14 Mexican colleagues are developing those maps, but
15 our initial analysis -- this is from NREL,
16 National Renewable Energy Laboratory, suggests
17 that between 1200 and 2300 megawatts could be
18 available for geothermal.

19 Keep in mind that the SDG&E system is
20 about 2500 megawatts or so. So these are huge
21 amounts of energy which could be available.

22 And the Baja, California system now is
23 about 2500 megawatts as well. So we're speaking
24 of significant amounts of potential power here,
25 particularly in the Salton Sea region.

1 I indicated to you that I think you saw
2 the slide once before, but I think it's relevant.
3 How energy develops in the region will determine,
4 to a large extent, what the air quality is. These
5 are four different scenarios of energies that both
6 the Energy Commission and the San Diego Energy
7 Working Group are considering.

8 But each one has radically different air
9 quality implications. This is analysis done at
10 SDSU that shows for one scenario you can see the
11 emissions reductions are significant compared to
12 2001. And that's because it has the two main
13 power plants have been retired here in San Diego.
14 The one in north county and South Bay. They've
15 been replaced by high efficiency combined cycle.
16 And there's a very very aggressive amount of solar
17 and wind and renewable.

18 That, of course, will increase the air
19 quality. All of these different scenarios meet
20 the energy forecasted need. So the message here
21 is how you do energy planning to meet energy need
22 has a profound impact on the environment.

23 The last slide doesn't seem to want to
24 go. Okay, now here are some recommendations I'd
25 like to leave you with. To reduce dependence on

1 far-away energy supplies, the region must make a
2 concerted effort to reduce demand, that is
3 conservation and efficiency, and increase
4 indigenous renewables. In the long term this is
5 clearly the future for this region.

6 Transmission planning and renewable
7 energy development must be coordinated or else we
8 will not be able to tap into the potentially large
9 amounts of renewable resources that are here.

10 The cross-border environmental effects
11 must be taken into account in the energy planning
12 process. It's no longer realistic or feasible for
13 southern California, San Diego and Imperial County
14 to go its own way in energy planning, and Baja,
15 California to go its own way. We're just too
16 intimately linked, our economies, our trade, and
17 now our energy sectors, to believe that we can
18 just put down power plants wherever we want to
19 without some over-arching, binational energy
20 planning process.

21 And the Border Energy Issues Group has
22 gone a long way to begin that process and the work
23 of Commissioner Boyd. And I hope this report will
24 contribute to that.

25 And then finally, this energy planning

1 process needs to be institutionalized. In our
2 view it can no longer be done ad hoc whenever the
3 situation arises. These facilities are much too
4 large now. The economy of the whole region
5 depends on the energy infrastructure and everyone
6 has to have input into that process on both sides
7 of the border.

8 Thank you.

9 PRESIDING MEMBER GEESMAN: Thank you.

10 MR. OLSON: Okay, I want to remind
11 people that if they wanted to speak later there's
12 a card over on the table there. If you'd please
13 sign that we can take you in the order that you
14 sign up, if you have comments later in the day.

15 A couple other things. Just remind you
16 that this meeting is being recorded and there will
17 be a transcript probably within two and a half
18 weeks, maybe less than that. And we may have
19 speakers during the day that speak in Spanish, and
20 if you're not bilingual there are headphones and
21 record machines there for you to listen in.

22 And also apologize for not having enough
23 copies of everything right at the front here.
24 We're going to try to have as many of the
25 presentations, hard copies of those presentations

1 here. There are some that have been from the
2 first part of the meeting today. Additional
3 copies are available on the table in the back.

4 And we will make all the copies
5 available on our website at a future date here,
6 probably later this week or early next week. And
7 by the way, our website is www.energy.ca.gov. And
8 if you go to the front page there it says 2005
9 Integrated Energy Policy Report. That's where
10 you'll find all of the background material.

11 Continuing on with the discussions on
12 the energy supply and demand, our next speaker is
13 Dave Geier of San Diego Gas and Electric. He's
14 going to give some comments on the existing
15 infrastructure and anticipated demand and maybe
16 new projects.

17 MR. GEIER: Thank you, Tim. Again, I'd
18 like to extend my welcome to Commissioner Geesman
19 and Commissioner Boyd. Thank you for coming to
20 San Diego again.

21 Today's session really is an important
22 session. I want to focus my comments today sort
23 of on our long-term resource plan and how it ties
24 into the binational issues.

25 The planning we're doing, basically

1 we've been working closely with CFE. And really,
2 as Alan pointed out, you really can't separate the
3 two regions. And most of my comments today will
4 be sort of on our plan, but I'll tie in the
5 northern Mexico issues, both gas and electric.

6 And I have a couple stories along the
7 way of things that just happened recently that
8 just show and explain how interconnected things
9 are.

10 So, starting with what are the
11 challenges for the region. And on September 10th
12 of this year SDG&E hit a new all-time system peak
13 of a little over 4000 megawatts. That is
14 interesting, but it's also interesting to note
15 that it really wasn't that warm of a day. I
16 remember I got a call and it was 92 in El Cajon,
17 which is inland maybe 20 miles; 82 at the airport.
18 So it was sort of a typical day, summer day for
19 San Diego. And this hit our 50/50 forecast, but
20 it shows that there's a lot more penned up demand
21 that could come on our system and the Baja system.

22 Alan talked about the older power
23 plants. Not only are they getting older, but I
24 think that the binational air quality issue is a
25 major issue, and how we deal with that is very

1 important.

2 Our transmission lines, I'll go into
3 more detail on this, are congested on a daily
4 basis. This year we spent about \$40 million at
5 our Miguel substation to improve the congestion.
6 But we need to continue that work. We'll spend
7 another \$30 million next year on the 230 lines
8 coming out of that substation.

9 So there's a large amount of congestion,
10 and for San Diego what that meant is that RMR
11 costs, our reliability-must run costs have went
12 from \$40 million two years ago; in 2005 they're
13 projected to be \$200 million for congestion.

14 And what that means, basically is that
15 we have to run these older plants. We have the
16 air quality issues in lieu of running plants that
17 are more efficient in other regions.

18 And then we have the mandate of the 20
19 percent renewables. And as Alan mentioned, really
20 the transmission picture has to be tied to the
21 renewable picture. That's the only way we're
22 going to be able to meet these goals by 2010. The
23 mandate is 2017 now, but we're all sort of pushing
24 for the 2010 timeframe.

25 PRESIDING MEMBER GEESMAN: Let me back

1 you up, David, on that press clipping you had.
2 Just as, I guess, exhibit A, that the press
3 doesn't always get it right. We have made the
4 projection that there are reasons to be concerned
5 as early as the summer of 2005. So, I think that
6 the problems besetting us are perhaps even more
7 immediate than were reported by The Union Tribune
8 on October 24th.

9 MR. GEIER: I think that's a real good
10 point, that since that time we realize that 2005
11 is a serious issue for the region.

12 So the SDG&E's long-term resource plan
13 really talks about a lot of the areas we've heard
14 about already this morning. And it's sort of the
15 loading order, if you will, for resources.

16 First of all is the energy efficiency,
17 demand response, conservation. All those things
18 basically, if there's not a kilowatt hour you have
19 to serve, it's better for everybody. So, you
20 know, that's really the first step there.

21 The next step is harnessing all these
22 renewable resources. And really the work that
23 we're working with Alan and other folks on this
24 binational, sort of trying to get how much
25 resources, renewable resources, are really in the

1 region. And the number is getting to be very very
2 impressive. And it's going to be a matter of, you
3 know, how much of that is economical; how much can
4 we reach with transmission.

5 The third step is building new
6 generation. I have a few slides on that that
7 we're making good progress in San Diego. And the
8 new plants in Mexico have also been very helpful.

9 And then the last is adding
10 transmission. And again that is really necessary
11 to sort of make this plan come together.

12 This preferred loading is consistent
13 with the PUC; also consistent with SANDAG and
14 other folks. So I think as a region we are sort
15 of in alignment with the stacking order here.
16 Maybe not the numbers, maybe not the years, but
17 the order of the resources, I think, we're pretty
18 much all in agreement there.

19 This pie chart, it's a little bit busy,
20 but if you look at the shaded area, we project
21 that we can have about two-thirds of our resources
22 come from inside of San Diego. Now that leaves a
23 third that needed to come from outside. And our
24 focus really is to the east. And you see that
25 piece of renewables there.

1 Renewable source split the same way,
2 that there's a big piece of renewables that are
3 just probably not going to be feasible and
4 economical coming from San Diego County. So it
5 could come from Imperial County or Mexico.

6 And then also you look at future
7 resources in the blue towards the top. That
8 basically is new, probably gas-fired power plants
9 outside of our area.

10 So we talk a little bit about energy
11 efficiency. As I mentioned, you know, the real
12 focus here is to continue and increase our efforts
13 in energy efficiency area. That's through
14 improved appliances, through energy efficient
15 windows, things of that nature.

16 And, you know, we've been working and
17 partnering with the cities on energy efficiency
18 programs. It's an area that I think in general we
19 just continue to increase our efforts there.

20 And why would we want to do that? If
21 you look at by 2013 we project that we could have
22 about 500 megawatts of energy efficiency, which is
23 equivalent to building another power plant in the
24 region.

25 Renewable energy, which steps are we

1 taking. You know, there's been a lot of talk
2 about renewables. There have been over 1700
3 photovoltaic systems installed in our area. It
4 sounds like a lot, but really it totals up to
5 about 8.6 megawatts. So the total energy produced
6 from it is a very small amount still. That's why
7 we're looking at things potentially like a solar
8 plant out in the desert, things of that nature,
9 where you can actually start getting much larger
10 amounts of megawatts there.

11 We have been out with an RFO process.
12 And again, those numbers become very very
13 impressive. There's a lot of megawatts out there
14 and the question is going to be how they stack up,
15 and sort of the economics. And can we get
16 transmission to deliver those megawatts to San
17 Diego.

18 Again, here's a slide that just sort of
19 shows the numbers aren't that important, but that
20 they start stacking up. And renewables can, by
21 2010, will be up to about the 20 percent range
22 there. And, you know, we could be going up to
23 1000 megawatts in the foreseeable future. And,
24 again, that's 20 to 25 percent of our total load
25 in San Diego.

1 And as we've seen this morning, as
2 population and load growth, both in San Diego and
3 in northern Mexico, the systems interconnect, and
4 I'll show that in a minute, that we need to have
5 the systems tied together to make sure that we can
6 deliver all these renewables.

7 As far as the power plants in San Diego,
8 we are building three new power plants. One will
9 be on for the summer of '05. It's a peaker plant,
10 45 megawatts. It's now called the Miramar Plant.
11 Before known as the Ramco Plant.

12 The Palomar Energy Plant, which actually
13 SDG&E will own, is 550 megawatts. And Otay Mesa,
14 which will have a purchase power agreement, is
15 another 500 megawatts. Now, it sounds like a lot,
16 but if you think about it, as Alan discussed, the
17 retirement of Encina and South Bay, this basically
18 just keeps a step ahead of that.

19 And what we're finding, as Commissioner
20 Geesman mentioned, for summer of '05 there are
21 power plants in the Los Angeles area that everyone
22 had planned to retire. And those plants cannot be
23 retired because they're needed for reliability.
24 So I'm concerned that we may have the same
25 situation here in San Diego, that those plants

1 will need to be continued to run. And they're
2 expensive plants now; they're not as efficient as
3 the new plants. And as we saw, the air quality
4 becomes an issue, also.

5 Here's a couple slides that actually the
6 construction, and it's interesting that we're
7 finally building power plants in San Diego. And
8 it's almost 50 years since we had a new power
9 plant built in San Diego.

10 Transmission, as most people know, we
11 were turned down on our Valley Rainbow line in
12 '03. And that really led us to the building of
13 some of this new generation. The other
14 interesting thing to note is the are 500 kV
15 transmission line is fully utilized on almost
16 every day. We say here on peak days, but almost
17 every day, which means that there are congestion
18 issues almost 365 days a year.

19 So, you think about that. It's like our
20 freeway system. There's a rush hour almost every
21 day. And what that means from an economic point
22 of view is that we have to run more expensive,
23 less efficient units every day to sort of manage
24 that rush hour on the electric grid.

25 And that's where, if we can do the

1 binational work and share power back and forth a
2 little bit better, potentially we can reduce some
3 of those costs, also.

4 Again, renewables are going to be a key
5 part of any transmission, and not just the real
6 high voltage transmission. With the wind plants
7 that are being planned now in our east county in
8 San Diego, there's even upgrades to our lower
9 voltage transmission systems that will be
10 necessary to interconnect those plants.

11 And we find that process really isn't
12 that easy, also because, again because of the
13 location of these plants, our system is very weak
14 in some of these areas. And we will need new
15 transmission even to deliver the existing wind
16 that's on the books for next year.

17 And, again, the interconnection to
18 renewables; the geothermal; potentially solar in
19 the valley is going to be real important.

20 Here's just a slide of our transmission
21 system. As you can see, we have one 500,000 volt
22 line in San Diego. And it basically provides a
23 lot of power from the east. This slide is very
24 busy, but basically shows we're doing a lot of
25 work. We installed a new transformer out in

1 Imperial Valley which gave us more import
2 capability from Mexico in 2003, 2004, I mentioned
3 we spent about \$40 million at our Bernita
4 substation. Again, that gives us more import
5 capability from Tijuana.

6 So both of those projects have allowed
7 this binational effort to increase both the import
8 and export capabilities of our transmission
9 system.

10 I talked a little bit about congestion.
11 The paths here shown in highlighted yellow are the
12 State of California congested paths. And
13 basically southern California is a nightmare as
14 far as the traffic problems, our electric grid,
15 especially during peak days.

16 As I mentioned before, we have one 500
17 kV line. There are 47 in the state. And
18 basically from a liability perspective it's
19 getting a serious concern as we have the growth
20 that Alan and others have mentioned this morning.

21 From a reliability perspective we're
22 very vulnerable to the firestorms. We had our 500
23 kV line out basically as the firestorm burned
24 across Miramar, the air base. If it would have
25 made it to 805 basically we would have potentially

1 lost everything south of highway 52. And if you
2 can imagine trying to fight that fire with no
3 lights and no way to really get them back on
4 quickly, it could have been a real nightmare.

5 Also, last month when the San Onofre
6 Unit Number Two tripped out, the nuclear unit,
7 unit 3 was down for maintenance. So it put a real
8 stretch on not only our transmission system, but
9 also all the local generation. As we talk about
10 systems being interconnected, on that day we were
11 concerned both from an electric load perspective
12 and a gas load perspective.

13 Working with SoCalGas there was really
14 not enough gas to run -- it was a very cold day,
15 also -- to all the residential load and the power
16 plants. We were very very tight. In fact, we had
17 to enact an emergency order. And I'll show a
18 little bit later a couple slides in the gas
19 system.

20 We now have an interconnection to
21 Mexico. And we actually brought gas from Mexico
22 into San Diego for the very first time. And that
23 is a good example of how all this energy is put
24 together. As you saw, both the plans for a lot of
25 natural gas power plants; it's not just on the

1 electric side, but the gas supply has to be
2 coordinated, also.

3 A little bit about the utility corridors
4 in California. I think the question here is we
5 may not know exactly when we need a new
6 transmission line, but there's no doubt we need
7 it. And that is going to be sort of a different
8 mind set for the future is that we really need to
9 do some corridor planning for transmission even
10 though we may not know the exact timeframe.

11 This slide is very difficult to see, but
12 basically it shows in your handouts that there's a
13 lot of different entities involved in licensing a
14 corridor. The big green area center is Anza
15 Borrega State Park. If we were to bring a new
16 transmission line from Imperial Valley we'd have
17 to go through the park. There's a lot of BIA
18 land, some tribal land, all before you hit
19 actually the populated area of San Diego.

20 So if we were to bring in a new
21 transmission line from Imperial County, and try to
22 bring in some of the renewables from out in that
23 area, it's going to be a challenge to license that
24 plant. But actually we think that's really
25 necessary and we're sort of embarking on that

1 process right now. Just sort of shows the County
2 borders there.

3 So, what are we doing? There are a
4 number of comprehensive studies. The STEPP
5 process brings in CFE, it brings in the Arizona
6 utilities, the southern California utilities, IID.
7 We're looking at some of the technical
8 feasibility, what needs to be done. Looking at
9 the ISO. And over the next six months we plan to
10 have a proposal for a new transmission system that
11 would be able to interconnect these renewables.

12 So that was sort of the overview of the
13 electric system. Just a few slides on our gas
14 system.

15 We have an integrated gas system. To
16 the south it connects to Mexico; to the north it
17 connects to our sister utility, SoCalGas. We have
18 interconnection points at Otay Mesa and Mexicali.
19 Both of those are really designed to take gas from
20 SDG&E to the Mexican customers. But as I
21 mentioned, the Otay point was reversed during the
22 crisis we had when San Onofre was off.

23 And here's a map just of that system.
24 It shows that -- Alan hit some of this -- that
25 it's going to be crucial to do planning, not just

1 on the electric side, but on the gas system side,
2 also to insure we have adequate resources for the
3 new power plants on both sides of the border.

4 A little bit about LNG, sort of where
5 the future plans sort of propose LNG will be a
6 piece of the puzzle, but it definitely is not --
7 it will supplement our gas supply, but it will not
8 relieve the need to bring in gas from Arizona.

9 And with that, that's the end of my
10 presentation. But I think the key I would like to
11 leave here is that both the gas system and the
12 electric system is really fully integrated here
13 across the border. I think Alan put it well that
14 the border is sort of an invisible thing there.

15 We need to coordinate both the energy
16 supplies to make sure we have adequate resources
17 for the future.

18 Thank you.

19 PRESIDING MEMBER GEESMAN: Dave, you
20 obviously have had to coordinate with CFE in the
21 past. Do you also interact with either the
22 Mexican federal government or the state government
23 in energy planning?

24 MR. GEIER: To some degree. I would say
25 in the past most of our emphasis has been with

1 CFE. They actually, you know, work with their
2 agencies, but there are parallel paths as we saw,
3 the valley area versus the Rosarito area. They
4 have east/west power lines, also. And at one time
5 there was some talk about possibly upgrading
6 those.

7 So there's a lot of different options.
8 And as we get into that, and of course, they have
9 the regulatory process to go through, also. So
10 all that has to be coordinated.

11 PRESIDING MEMBER GEESMAN: Thank you.

12 MR. OLSON: Just to remind you, those
13 standing in the back, we do have a few more chairs
14 on the side, or you're welcome to sit at the
15 horseshoe here, any open chairs in the horseshoe,
16 or actually in this front area here.

17 Because I know, I've been in this room
18 before and had to stand in the back for a whole
19 day. So I know that can be tiring.

20 Our next speaker, we're pleased to have
21 a representative from the Baja State Government,
22 Manuel Garcia Lepe. And he's going to give
23 another discussion, another presentation on some
24 of the infrastructure on the Baja, Mexico side of
25 the border.

1 I apologize for not -- we do not have
2 hard copies of this presentation available. I
3 think the Commissioners have an earlier version.
4 He's modified that, updated it. We'll have that
5 available on our website.

6 So please welcome Manuel Garcia Lepe.

7 MR. GARCIA LEPE: Thank you. I want to
8 appreciate Chairman Mr. John Geesman, and my
9 friend, Jim Boyd. Also my friend, Mike Smith. To
10 give me the opportunity to make this presentation
11 today at this workshop.

12 After the brilliant presentation from
13 Alan Sweedler I think that I won't have too much
14 more to say that is new. But, I am in charge of
15 all projects, promoting projects of energy and
16 infrastructure in the Baja, California State
17 Government.

18 Please start. Thank you. We don't have
19 our own electrical grid reserve. We are not
20 connected also to the national grid of pipelines
21 from PamEx for the rest of the country. We are
22 insulated also from the national electric grid, as
23 well.

24 So, you can imagine 40 years ago Baja,
25 California was importing all its energy, the

1 sources from the United States; also telephone
2 lines. Most of our goods and supplies were coming
3 from this country to our country.

4 So if some expertise or specialists in
5 those years could make a forecast of how much
6 Baja, California will grow in those 40 years,
7 well, it would be a lot of work to do. And I am
8 certain that it wouldn't be precise. Because the
9 growth of Baja, California in the last 20 years
10 has been phenomenal.

11 In that particular regard we have the
12 second highest growth nationwide in Mexico, 5.8
13 percent annually. And most of that growth comes
14 from migration from the rest of the country.

15 The supply of natural gas now in Baja,
16 California comes from imports from the United
17 States.

18 This has been shown several times this
19 morning. It shows, anyway, all the infrastructure
20 of Baja, California regarding power and gas
21 infrastructure. As I mentioned, we are receiving
22 gas from this pipeline coming from Blythe all the
23 way now to Aguilones, Baja, California on the
24 border between Sonora and Arizona and California.

25 From there there's been built a

1 pipeline; we called it (indiscernible) trunk
2 pipeline, main pipeline coming all the way from
3 there to Tijuana; and from there to the Rosarito
4 Power Plant. So that is the Baja Norte pipeline.
5 That pipeline is also connected to another
6 pipeline coming from San Diego that was before --
7 right before me, which is feeding the Rosarito
8 Power Plant nowadays. It's TGN pipeline right
9 there.

10 Also there's some other pipeline
11 connected from this main line coming from Texas
12 all the way down to Mexicali, but it's feeding the
13 grid that is built in Mexicali to feed the
14 industry and domestic clients.

15 Also there are three companies working
16 nowadays developing grids to feed industrial and
17 domestic customers in Tecate, in Tijuana, and many
18 little, but also started in Ensenada. So those
19 grids are being developed by the Mexican companies
20 specialize in doing that particular sector.

21 As was mentioned before, the power
22 plants in Baja, California, which is the oldest
23 one is the Cerro Prieto (indiscernible) plant,
24 which is delivering around 1000 megawatts a year.
25 And also the Rosarito Power Plant at the Pacific

1 coast. That is also very close to 1000 megawatts.

2 Part of that power plant is run by fuel
3 oil, around 66, 70 percent of the plant is run by
4 fuel oil. But the new additions are now being
5 fueled by natural gas.

6 The new power plants on the border, the
7 Rosarito -- I mean the Mexicali 2 and the Mexicali
8 3, the Mexicali 2 is (indiscernible) delivering to
9 CFE all the power developed there by the Mexican
10 power plant. Is being built by InterGen.
11 Fifty/50 percent, 50 for exporting and 50 for
12 local consume. That's the agreement with CFE,
13 which is around 1200 megawatts. That amount, 600
14 to be exported and 600 to be used in the local
15 consume.

16 And this next plant, very close by, is
17 the Semptra Power Plant, which is a 600 megawatts,
18 also. And it's an agreement to export 100 percent
19 of that production to the United States.

20 There is a very important power line
21 that goes across the desert from Cerro Prieto all
22 the way to the border. And that power line is
23 being used now by Semptra to deliver this power to
24 the United States.

25 There's another interconnection of

1 electrical power at the San Diego/Tijuana border.
2 There's a small power station also there.

3 And there's a new project for CFE to
4 develop a new power plant down south the state to
5 produce 285 megawatts built in the future. I
6 think they are about to start developing this
7 project in the very near future.

8 I also want to mention that the natural
9 gas station that is already under constructions
10 right now. It's located right there at Costa Azul
11 where there's going to be a station to storage 1
12 billion cubic feet per day. That's very close by
13 and should be there the next CFE power plant to
14 generate those 285 megawatts.

15 From there, from the Costa Azul --
16 station that there will be another pipeline going
17 up north to connect to this Baja Norte pipeline
18 that I mentioned. And they will send this gas
19 that will be storage there, they will send that
20 gas to up north to be collected through this
21 pipeline to feed all these power plants that we
22 talk about. And also all these companies and
23 domestic customers are going to be fed also with
24 natural gas around the north of the Baja,
25 California state.

1 Now they say we are consuming around 400
2 million cubic feet per day in Baja, California in
3 all of them being imported from the United States.
4 This is a slide that shows the production of
5 electricity in Baja, California now to be consumed
6 in the state. And it's very important, the
7 production, because it's 14 percent of the total
8 Mexican production of electricity, with only 2.8
9 of the Mexico's population. That will show also
10 the big demand of electricity in the state.

11 We are the only (indiscernible) exporter
12 to the United States of electricity nowadays. We
13 hold the second largest geothermal plant in the
14 world, with 720, which has been increased lately
15 to very close to 1000 megawatts. There's two
16 major projects that I already mentioned it,
17 InterGen and Semptra.

18 This is the demand of natural gas in
19 Baja, California. That is the demand of
20 electrical energy is being growing very high the
21 last three years. And to make a comparison, we
22 think that we are needing with 500 megawatts every
23 four to five years, which means that a new
24 combined cycle plant has got to be built in the
25 same period of time.

1 I know that there are differences
2 between the free use of the demand of Baja,
3 California of power between several national
4 suppliers or national -- (indiscernible) in
5 Mexico, but the reality is that Baja, California
6 would see expansion of people growing every day,
7 and also the big growth of industrial in the state
8 will be very close to what was mentioned before,
9 the 6 to 7 percent annually.

10 According to the Energy Department in
11 Mexico, the next ten years the demand of energy in
12 Baja, California will grow up to 5 to 8 percent
13 annually. That's the figure that I have. That's
14 a figure coming from the National Department of
15 Energy.

16 In the right-hand side of the slide you
17 can see there that we are consuming right now a
18 little bit under 400. By the year 2006 it will be
19 500. And on the way up to 2014 to 2015, between
20 those two years there, we are going to need the
21 whole production of Costa Azul energy plant, 1,000
22 million or 1 billion cubic feet per day. So in
23 2013 that gas station will be saturated. And it
24 will still growing, as you can see there.

25 So which of the solutions for Baja,

1 California regarding natural gas and power. We
2 have to create a natural gas alternative source
3 right now. We have to start doing that because
4 through our region there's no other way to have
5 gas but coming from the United States, which is
6 increasing the price every day. You know that the
7 prices are going up fast, faster. But there's no
8 other source to bring gas to Baja, California but
9 that.

10 So the creation of this regassification
11 plant is one of the solutions that we have
12 immediately.

13 We know that the construction of an LNG
14 plant is not only the terminal, itself. The
15 company has to invest in the infrastructure of the
16 site of storing. For they drill; they have a
17 liquefaction plant, which is a lot of -- much more
18 expensive than even the regassification plant,
19 itself.

20 Also have the ability to transfer this
21 gas from the source sites to the regassification
22 plant. That means to have ships available to do
23 that, which is very difficult also nowadays. And
24 they, of course, develop this regassification
25 plant onsite, and all the infrastructure to

1 deliver this fuel.

2 So I think that it is taking a lot of
3 investment in Baja, California to do that. And I
4 think that there's only one way to do it, the way
5 a foreign company like Semptra with its resources
6 and the Association (indiscernible) company is the
7 only way to do it.

8 The benefit for Baja, California, of
9 course, will be the first one to stabilize the
10 prices of natural gas; to be competitive. These
11 two companies are developing the Costa Azul
12 project are going to be competing between them
13 because only the association between them, Shell
14 will only be leasing the space in this plant.
15 Leasing, I don't know, between 40 and 50 percent
16 of the capacity of the plant will be leased by
17 Shell. So they are going to get their own gas
18 from the sources that they have developed. And
19 they are going to compete against them, but be
20 gaining customers and bringing the price down as
21 much as they can.

22 There will be (indiscernible) energy
23 because we will have different supply origins,
24 eliminating one source. All this regulations on
25 the LNG, the storage, the transportation and the

1 prices will be regulated by the Mexican Commission
2 of Energy.

3 The natural gas supply source for the
4 whole state of Baja, California that will support
5 this economic development, and quality of life is
6 also very important for us.

7 The benefits for one electric station is
8 the overflow due to consumptional costs, which is
9 the main one. We have made some research that
10 will hit around Baja, California, around \$330
11 million in the next three to four years during
12 construction. From those 330, only in the
13 municipality of Ensenada will be \$236 million.

14 Jobs during construction will be over
15 3000 direct and indirect. The supply development
16 program is also very important for our state.
17 There are several companies bidding for the
18 construction of different contracts like the
19 access roads, for example, which is on the
20 construction. Also there is a different company
21 to build part of the station. And the earthwork
22 and similar construction will be granted to local
23 construction companies.

24 This isolation was a very difficult task
25 to develop a site that will be away from urban or

1 industrial areas. To be sufficient land reserve
2 for buffer zones. Close to the coast and nearness
3 to the deep sea, which is exactly that point is
4 100 meters deep -- I mean, I'm sorry, 20 meters
5 deep and 150 meters away from the coast, which is
6 a very special site, very close to the shore, very
7 deep nearby.

8 It's protected from (indiscernible) and
9 less special impact, accomplishing local
10 environmental protection regulations. Also
11 national regulations at the same time.

12 This is the piece of land exactly the
13 way it is. The road that you see there is the
14 toll road between Tijuana and Ensenada. And the
15 piece of land goes all the way from the shore to
16 the toll road. So the access road will be within
17 their own piece of land.

18 This is the power plant that I was
19 telling you about before, which is the one that is
20 going up north of the Costa Azul facility to the
21 Baja Norte land, and want to be connected right
22 there where it's shown, really close to Tijuana.

23 All the regulation of these
24 transportation, these pipelines are going to be
25 open access. So any company can use the line. No

1 exclusivity in its permission; CRE rules are going
2 to be there for to control all these procedures.
3 And the transport permit only allows the user to
4 get gas to the customers in every place.

5 This is a view, south to north, of this
6 facility. That's the way it's going to be. It's
7 not exactly to scale, but this is the way it's
8 going to look like. From west to east. As you
9 can see behind the station there is a high hill.
10 You cannot see the tollway from there.

11 You can see from that hill, you can see
12 that that's the way it's going to be seen when the
13 ship is docked there. The access road is going
14 exactly straight as shown there, but is going to
15 come from there to the tollway.

16 Sempra Energy is the one that is the
17 company that is developing this project. Is
18 granted a lease contract to Shell in order to
19 storage gas right there. I don't know if it's a
20 50/50 situation, but it's going to be pretty close
21 to that percentage.

22 You can see there what is the investment
23 of the total facility. The temporary employment,
24 and also the permanent employment which is very
25 low because these plants are very automatic.

1 The current status is the access road is
2 under construction and the construction of the
3 plant is late 2000, as a matter of fact, it's
4 already there. I mean the general contractor is
5 already designated.

6 I want to mention also to finish my
7 presentation the other project that is on the way
8 of its permitting process, which is the offshore
9 LNG terminal, 14 kilometers away from the
10 shoreline, ten miles from Tijuana. And about a
11 kilometer away from the Porto (inaudible) Island,
12 the bigger Porto (inaudible) Island.

13 The use of land has been requested to
14 the state government only for the pipeline,
15 because we don't have any -- that's the state
16 government, any permits regarding this facility.
17 It's an offshore, it's a federal permitting. Only
18 the CRE, the Semarant and the Department of
19 Communications and Transportation are going to
20 give the permits to this company.

21 This only permit not yet been approved.
22 And we are watching over this project, if the
23 federal government is going to approve the
24 project, then we will have to revise and submit
25 this facility to the local community and local

1 authorities.

2 I thank you again for this opportunity.

3 And that would be -- thank you very much.

4 PRESIDING MEMBER GEESMAN: Thank you
5 very much.

6 COMMISSIONER BOYD: Thanks, Manuel; nice
7 to see you.

8 MR. OLSON: Okay, our next speaker will
9 be Abelardo Borquez from Comision Federal de
10 Electricidad. I believe he's going to speak in
11 Spanish, so you may want to, if you need to obtain
12 a headphone they're over here against the wall.
13 And there's also a presentation, we don't have
14 hard copies of this. We'll make them available
15 when we -- probably after this meeting.

16 MR. BORQUEZ: Hello. Well, my name is
17 Abelardo Borquez.

18 (Presentation given in Spanish.)

19 COMMISSIONER BOYD: Thank you.

20 PRESIDING MEMBER GEESMAN: Thank you
21 very much.

22 COMMISSIONER BOYD: Gracias.

23 MR. OLSON: Okay, our final speaker this
24 morning is Steve Hoffman who represents the San
25 Diego Regional Chamber of Commerce. He will give

1 some background on economic development and some
2 of the impacts to the large energy users and other
3 customers. So, Steve, please.

4 MR. HOFFMAN: Thank you for joining us
5 today to give us a reason to talk about something
6 other than the mayoral election and the pension
7 deficit.

8 (Laughter.)

9 MR. HOFFMAN: My comments today will
10 reflect the work of the Regional Chamber of
11 Commerce, the energy committee, who advises the
12 Chamber Board on public policy issues.

13 We have developed 2005 legislative
14 agendas which we'll pass out to the Commissioners.
15 And my comments will really address the key issues
16 within that agenda.

17 There are four key areas in which the
18 business community within San Diego is concerned
19 about energy. Obviously it relates to reliability
20 and cost. But we look at resource adequacy and
21 efficiency as being our first agenda item. We are
22 concerned about the cost effectiveness and the
23 adequacy of the resource to serve the area.

24 Also we're going to look at some rate
25 and tariff issues in 2005. We're concerned about

1 some of the costs that are being layered on
2 nonresidential business users, some of which can
3 be taken care of through rate and tariff reform;
4 some of which really have to be taken care of
5 through changes in legislation.

6 And then we're very appreciative of the
7 incentive programs which have been made available
8 to us in the past. SDG&E has been a very
9 effective operator of energy efficiency programs
10 in the past. And may be a victim of their own
11 success, as the low hanging fruit has already been
12 picked for energy efficiency. Yet the goals for
13 future energy efficiency are pretty significant.

14 And then also I'll talk a little bit
15 about our view of competition, both in terms of
16 direct access and community aggregation.

17 As you can tell I had a lot of time to
18 prepare this. I have slide envy; my slides are
19 not nearly as pretty as some of the others.

20 With regard to resource adequacy, the
21 long-term resource plan is predicated on the
22 construction of two new combined cycle plants and
23 the existing resources being available at least
24 through some period of time when they can be
25 either replaced or retired with some confidence.

1 We have concerns on a couple of fronts.
2 Right now we import on a peak day approximately 56
3 percent of our total resource needs. In other
4 words, our in-County generation is inadequate.
5 And the inefficient resources that are viewed as
6 being retired, the Cabrillo Power Plant and the
7 Encina Power Plant, constitute a very high
8 percentage of that peak day requirement.
9 Something on the order of 35 percent.

10 Without long-term contracts to motivate
11 repowering, if they rely on RMR agreements that
12 are subject to renewal on a year-to-year basis,
13 we're concerned that these operators may retire
14 these plants ahead of the schedule that the
15 utility has anticipated. So we're very concerned
16 about that, and we would support efforts to give
17 long-term contracts to these existing operators to
18 facilitate the repowering of these facilities.

19 We're also concerned about the
20 assumption related to the Calpine plant being
21 planned for Otay Mesa. The contract power
22 purchase agreement with that plant is predicated
23 on a reassignment of a CDWR contract called
24 Sunrise, which runs through 2011. The Calpine
25 plant is to come online somewhere in the area of

1 2009.

2 And if the Sunrise contract is not
3 reallocated, then there's sort of a jump ball on
4 whether SDG&E will be able to honor the power
5 purchase agreement and support the construction of
6 that plant. I'm sure SDG&E can speak to that more
7 accurately than I can, but it seems that until the
8 Sunrise contract is assigned or reassigned, that
9 resource may be at risk. And if that resource is
10 at risk, then we've compounded our problems in the
11 region.

12 It seems like our safety net really lies
13 in transmission. We have supported SDG&E's effort
14 to construct, or their proposal to construct the
15 Rainbow line. It made sense to us in the region.
16 It was unfortunate that it didn't succeed. And we
17 do support SDG&E's efforts to extend transmission
18 links to other potential supply markets on both
19 sides of the border. But we're particularly
20 interested in seeing the transmission network be
21 made more reliable into the region.

22 Regarding rates and tariffs, the San
23 Diego economy depends largely on small businesses;
24 97 or 98 percent of the businesses in the region
25 have less than 50 employees. And within the SDG&E

1 ratebase, and I'm sure that the statistics are
2 close, but potentially not accurate, 11 percent of
3 the meters, but 60 percent of the load is
4 attributed to nonresidential energy use.

5 Because of AB-1X providing a price cap
6 on residential rates, and because large end-users
7 have the load and the sophistication to purchase
8 their own power, commercial customers, the heart
9 of our business community, are seeing a rate
10 squeeze which absorbs the other costs that are
11 being attributed to the San Diego region, most
12 recently the \$733 million reallocation of the CDWR
13 contracts.

14 We're seeing commercial rates that are
15 approaching 20 cents on the average. And it's
16 becoming a greater share of the cost of operating
17 a business in San Diego. So this is a very very
18 critical issue and we hope to get relief any way
19 that we can, but particularly interested in seeing
20 reform of AB-1X.

21 We believe that the price caps provide
22 an artificial price signal to residential
23 customers, and actually are a disincentive for
24 them to invest in energy conservation and
25 renewable technologies.

1 We believe in real price signals and
2 removing these price caps would, of course,
3 provide that. And it would also somewhat dampen
4 the allocation of costs from this most recent
5 event, the CDWR contract reallocation.

6 We also would like to work with SDG&E
7 and with the Commission over time to reduce the
8 level of cross-subsidization that exists between
9 the commercial and the residential rate classes.
10 We, like all other businesses in the state, feel
11 that it's not fair.

12 But we also think that -- I believe, and
13 the people who work on the committee believe that
14 most customers would be satisfied, most commercial
15 customers would be satisfied with appropriate cost
16 allocation or cost of service rates. And would be
17 less inclined to seek competitive options through
18 direct access.

19 Now, certainly the largest customers
20 want direct access. That's true here and
21 elsewhere in the state. They have the load factor
22 and they have the sophistication to pull it off.
23 They're an attractive load to a potential seller.

24 Smaller customers are not. They don't
25 have the time to mess with it; they don't have the

1 inclination to deal with it unless there's a great
2 economic incentive. And they would be good
3 candidates for an efficient, reliable bundled rate
4 provided by the utility provider.

5 Now, in the area of community
6 aggregation we have heard concerns from businesses
7 that the mechanism by which load will be
8 aggregated, if, in fact, communities decide to go
9 in that direction, would require that you're in
10 unless you opt out.

11 And as we all know, we don't pay as much
12 attention to energy as we should. And I fear, we
13 fear that many of these businesses will roll into
14 a community aggregation program without their
15 knowledge and their consent.

16 And we feel that the mechanism is
17 backwards. That you should opt in. The community
18 should provide a good value proposition and you
19 should agree to accept it before you're engaged in
20 those programs. Otherwise businesses are
21 concerned that this will be another form of
22 taxation. And that there will be a -- since we
23 have fewer votes and larger loads, we may feel the
24 greater burden.

25 So that's a synopsis of sort of the

1 regional issues. This being a border conference
2 I'll give you my less-than-expert opinion on
3 cross-border issues.

4 The region does -- a tremendous amount
5 of our gross regional product relates to the
6 proximity to the border. And I don't know what
7 the number is, but it certainly would be in the
8 billions of dollars.

9 Customers and production facilities,
10 commercial customers in Tijuana and across the
11 border are beginning to experience what we
12 experienced five or six years ago. And that is a
13 very rapid increase and concern for even more
14 rapid increases in the cost of their energy. And
15 this will make them less competitive with other
16 parts of the world in a global economy.

17 You know, certainly with the China
18 economy gaining steam we would hate to lose what
19 we have across the border to a country across the
20 ocean. We've already lost the jobs. Now we want
21 to at least keep the revenue.

22 So, we believe that the border
23 providers, be it the utility or the ESCOs or any
24 of the service delivery industry related to energy
25 efficiency, should work very closely with their

1 Mexican counterparts to promote energy efficiency,
2 to make it happen.

3 Because of the low rates we feel there's
4 a significantly greater amount of low hanging
5 fruit across the border than there is in the
6 United States.

7 The environmental issues others will
8 speak to. We feel that all infrastructure should
9 follow California's standards if, in fact, that
10 energy is going to be made available in
11 California. But we also realize there's benefits
12 in stranding natural gas from the LNG facilities
13 in Mexico to alleviate the current reliance on oil
14 and its resulting emissions. So others more
15 expert will speak to that.

16 We are concerned that a lot of the
17 infrastructure that's being planned and viewed as
18 being made available to both markets is actually
19 going to be barely sufficient to meet the growing
20 demand in Mexico.

21 And that from a long-term view we
22 shouldn't count on any of these facilities
23 actually contributing to our demand here in the
24 United States. In fact, the inverse may be true
25 if the -- energy is really the oxygen of any

1 country's economy. And as energy is made more
2 available, particularly if its prices are
3 subsidized, economic growth will increase. And
4 could outstrip these existing resources. And we
5 could see a situation where Mexico is again asking
6 us for more of our energy -- for the use of more
7 of our energy infrastructure.

8 So, I have some recommendations. I need
9 to go to remedial PowerPoint class. There we go,
10 all right.

11 We concur with the efforts to plan as a
12 region. And enough has been said on that issue.
13 There could be an opportunity to view the markets
14 as a common wholesale market. Certainly we have
15 pipes and wires that we share. And, you know, as
16 businesspeople we view that, you know, there's an
17 economic efficiency to a market when a scarce
18 commodity is allowed to flow to a greater value
19 market.

20 We feel that the presence of subsidies,
21 of course, make a -- I won't go into my discourse
22 on markets as it relates to California's market,
23 but we see the markets don't function unless
24 there's clear price signals. And between our two
25 countries we can make better use of existing

1 infrastructure; we can make better use of future
2 capital dollars. And we can certainly see that
3 energy will flow to the greatest use if we have a
4 common wholesale market.

5 And we're quite concerned about the
6 location of infrastructure that is critical to our
7 reliability here in the States. Clearly
8 infrastructure that's built to serve the essential
9 needs of a community should be located closest to
10 that load. We shouldn't rely on disruptions. And
11 we've experienced that, both on the transmission
12 lines and the pipelines. We all remember what
13 happened when El Paso natural gas pipeline had
14 their event in August, I think of 2000.

15 And so we shouldn't rely or become
16 complacent in our efforts to grow our own
17 infrastructure close to the load.

18 So, thank you.

19 PRESIDING MEMBER GEESMAN: Thank you.
20 And I think that reinforced most of your comments.
21 Let me say one thing, though, as it relates to the
22 last one about the preference for local resources.

23 I think that's a natural priority to
24 have, and it's one that we ought to pursue. But
25 at the same time I think in pursuing that

1 preference we shouldn't lose sight of the fact
2 that of necessity in many ways we are
3 interconnected with other parts of California,
4 with Baja, with other parts of the west.

5 And I think one of the themes that came
6 to my mind i listening to the earlier
7 presentations, as it relates to the tremendous
8 priority that this state has set on developing
9 renewable resources.

10 We commonly have thought of those in the
11 past as decentralized and distributed resources.
12 And in some of them technologies they are. Solar
13 systems, for example, obviously; locate the
14 generating resource as proximate to the load as
15 possible.

16 But in a number of the other
17 technologies, most notably wind and geothermal,
18 those are remotely located. And we are not going
19 to be successful in fully developing those
20 resources or their potential unless we recognize
21 the need to do a lot more in upgrading our
22 transmission system.

23 This part of the state, I think, has
24 borne the brunt the last five to ten years of our
25 inadequate investment in those upgrades. You are

1 a very remote corner of our integrated grid. I
2 think very poorly interconnected with the rest of
3 California. I think poorly connected with the
4 rest of the southwest. And I think that your
5 ratepayers have suffered the consequence of that
6 poor interconnection.

7 One of the primary priorities that the
8 Energy Commission has identified, and Governor
9 Schwarzenegger has spoken of, is the need to
10 upgrade our transmission systems. And I would
11 suggest to you, based on this morning's
12 discussion, that this community is in need of
13 serious improvement in its connections to the
14 north, to the east and to the south.

15 We haven't heard anything about tidal
16 power today, so I don't want to foreclose
17 connecting to the west. But I think the other
18 three directions have been pretty clearly
19 addressed; and it's one that we need to bear
20 closely in mind as we move forward.

21 But I thank you for your comments.

22 MR. HOFFMAN: (inaudible).

23 PRESIDING MEMBER GEESMAN: Yes.

24 MR. OLSON: Okay, we're pretty close to
25 our schedule. And we'd originally planned to come

1 back at 1:00. What's your preference,
2 Commissioners, for --

3 PRESIDING MEMBER GEESMAN: I think that
4 I would like to do that and to start right at
5 1:00, because we've got a fairly crowded timetable
6 in the afternoon.

7 But I want to get the agreement of the
8 two public comment requests that I received to
9 adjourn now and then come back at 1:00? One is
10 Bill Powers, and I note you're on the agenda this
11 afternoon, Bill.

12 MR. POWERS: Yes, Commissioner. The
13 comments that I had were just comments related to
14 some of the presentations this morning.

15 PRESIDING MEMBER GEESMAN: If you could
16 address those in your presentation then --

17 MR. POWERS: Well, the only potential
18 problem with the presentation is I see that we're
19 in three separate work groups, right? And so will
20 we have a plenary for the group?

21 MS. ALLEN: It will be sequential.

22 MR. OLSON: Yeah, our public comment was
23 meant to be at the end of the last group of
24 presentations.

25 MR. POWERS: That's fine with me, to

1 wait until --

2 MR. OLSON: And then the Imperial
3 Irrigation District was the other.

4 PRESIDING MEMBER GEESMAN: Yeah.
5 Orlando, are you going to be around this
6 afternoon?

7 MR. FOOTE: Yes, sir, I am.

8 PRESIDING MEMBER GEESMAN: So it would
9 be acceptable to defer until this afternoon?

10 MR. FOOTE: Most assuredly.

11 PRESIDING MEMBER GEESMAN: Very well.
12 We'll adjourn now. We'll be back, and I'll try
13 and start it right at 1:00.

14 MR. OLSON: Okay, just for lunch
15 purposes there's a deli on the third floor of this
16 building and there's several restaurants on 6th
17 Street south of this building.

18 (Whereupon, at 12:10 p.m., the workshop
19 was adjourned, to reconvene at 1:00
20 p.m., this same day.)

21 --o0o--

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1 AFTERNOON SESSION

2 1:10 p.m.

3 MR. OLSON: Commissioners, we're going
4 to start our second afternoon session. This is a
5 continuation of the last session of the morning.

6 Continuing our presentations on energy
7 supply and demand, these next two presentations
8 will focus on some of the opportunities and
9 challenges of introducing energy efficiency,
10 combined heat and power, and one presentation on
11 geothermal power.

12 The first speaker is Rob Swette, who is
13 a consultant working for the Western Governors
14 Association. And there's a special organization
15 under the WGA that's a U.S./Mexico Border Energy
16 Workgroup. The Energy Commission is a member of
17 that with nine other states.

18 And Rob is going to do a presentation of
19 some of the activities where we focused on
20 primarily energy efficiency and combined heat and
21 power projects. And please welcome Rob Swette.

22 MR. SWETTE: I guess while Tim's getting
23 the remote control for the slides, like Tim said,
24 my name is Rob Swette, and I'm working as
25 basically the project lead coordinator for the

1 Border Energy Project as part of the WGA.

2 Rich Halvey is the director of air
3 quality programs at the WGA, who is basically the
4 champion and sponsor of this program. Rich has
5 worked with several of you. I know, Commissioner
6 Boyd, he's worked with you in the past on some
7 things and currently. He sends his regards to all
8 and is regrets for not being able to be here with
9 schedules and things.

10 What he asked me to talk about today is
11 really three things. One is the history of this
12 project, the border energy project. How it came
13 about in the context of understanding what it is
14 and why we're doing what we are today.

15 The second thing is to go into a little
16 more detail about the things we currently have
17 going. And then finally, there's some other
18 activities that the WGA is involved with that he
19 wanted me to pass on to you.

20 In terms of how this whole thing got
21 started, the WGA started this project in 1999.
22 They got funding basically to improve air quality
23 in the border region. And the mechanism for doing
24 that was improving energy efficiency in stationary
25 sources, nonresidential.

1 And so with that mandate in 1999 we said
2 what's the best way to get started. And we
3 decided that it was best to talk to the people
4 that were actually involved with energy efficiency
5 projects, people that were users and so forth.
6 And conducted a couple of focus groups. We
7 conducted one here actually in Mexicali and the
8 other one in Ciudad, Juarez.

9 The results of those, or the outcome of
10 those focus groups was really two things that the
11 people said they needed to implement energy
12 efficiency projects.

13 The first one was a website that the
14 border region really has its own unique
15 characteristics and quality, and we needed a
16 place, or they felt they needed a place where they
17 could actually get information that was pertinent
18 to this region, be able to locate resources, and
19 be able to share information about the border
20 region.

21 And so we developed this website; it's
22 called borderenergy.org. It's bilingual; it has
23 lots of information on it, all the way from how
24 you get started or initiated in doing an energy
25 audit for yourself, self audit. It's got case

1 studies on there. It's got sources for technical
2 information for implementing a project. Places to
3 find financing. As well as a marketplace for
4 people that have got energy efficiency needs that
5 want to post those and find someone to give them a
6 quote.

7 So we developed this site, and we
8 completed it basically I would say two years ago.
9 And as any kind of website, it's a work in
10 process. We're always working to improve it. And
11 so that's an ongoing effort.

12 In parallel to that the people in the
13 border region said that what was important is that
14 installation or places to actually go see
15 facilities where they've done energy improvements
16 are usually too far away. Or they're not
17 consistent with the kind of industry that they're
18 in, and so it's a little bit dubious.

19 So they really felt that they needed to
20 have some pilot projects in the border region that
21 we could actually point to and take people to. So
22 as part of that the WGA funded 15, and it called
23 them preliminary audits. They weren't financial-
24 grade audits. They were just a means to identify
25 opportunities in the spirit that the companies or

1 the organizations that we did those for would take
2 some action.

3 And the funny thing was about two years
4 ago we went back -- a year ago, to look at what,
5 did anything actually happen with those audits.
6 And what was interesting was a lot of the items on
7 the recommendations they had actually implemented.
8 And so we were quite pleased with that. We didn't
9 get sort of the publicity and things that we
10 wanted to at the time, but at least it showed that
11 people had the information, they had some
12 technical assistance, they could take action. And
13 these were very simple things from lighting to
14 HVAC, that type of thing.

15 The other thing that we did as part of
16 this was developed some marketing materials that,
17 you know, all this is getting the word out and
18 getting information to people so they know it's
19 there, for one thing. And then, two, have some
20 ideas on how to use it.

21 So we developed this partner kit for all
22 the people, organizations that we've been working
23 with. And I have a copy of it here for you if
24 you'd like it. I brought some extra copies for
25 you.

1 The next thing we did was we got the
2 website, we got some of the audits, we said where
3 do we go from here. And we felt that if we're
4 going to focus our efforts we need to take sort of
5 a business approach to this.

6 And where do you start with a business
7 approach? That's what's the market. And we
8 embarked upon this market assessment probably a
9 year and a half or so ago, and just completed this
10 in March. And I'll go into more depth about that
11 because it's really driving one of our current
12 activities.

13 Then the last thing I have in there is
14 the BEARS. And I'll leave that for a little bit,
15 but that's one of the things we're currently
16 working on. It's a little bit of a tease.

17 Okay. I put this slide up there for the
18 market assessment. We did the market assessment
19 again in the spirit of trying to focus our
20 efforts. Two things, geographically where do we
21 need to put our emphasis. Where are the
22 opportunities in the border region just
23 geographically.

24 The second part of it was what
25 industries. Is it the maquiladoras, is it

1 hospitality, is it government, is it health care.
2 You know, you hear so many things and you kind of
3 get off on these different paths. And we said,
4 you know what, we need to really have some solid
5 data or information so we can focus those efforts.

6 So we basically leaned on everybody we
7 could. And there you can see that the different
8 organizations that actually participated with
9 either data that they had or actual field
10 experience.

11 So we collected the information there
12 from those organizations. And I just wanted to--
13 two things: One is that we took it from a broad
14 range of sources, so I feel you've got a fairly
15 objective point of view. And then two is just to
16 recognize and thank the people that actually
17 contributed.

18 Some of this is probably, you know,
19 basically for a lot of this is, you've seen a lot
20 of times today and other places, but the thing I
21 think I want to really bring to your attention is
22 that the second-to-last bullet. That 87 percent
23 of the manufacturing activity is concentrated in
24 Tijuana, Ciudad, Juarez, and Matamoros.

25 That if you look at the border region

1 it's a big area, but all the action is basically
2 happening in three places. One may argue two, but
3 it's basically in three places.

4 And for the results of our study from
5 the audits that we did, from the discussions that
6 we had with other people, energy conservation can
7 play a key role in meeting our electricity needs.

8 This, again, continuing on with some of
9 the results. And I don't know if I mentioned, but
10 I do have the study here on CD. It's probably
11 about an inch thick, but it's here for your
12 taking. I brought extra copies, as well, so
13 they're more detailed.

14 I think the key thing I want to mention
15 here, identify, is that in those three cities that
16 if you target just the assembly of electronics,
17 furniture and automotive it would produce annual
18 savings 326,000 megawatt hours, or \$17.1 million
19 in energy costs.

20 So we don't profess to say that oh, by
21 implementing all these energy efficiency projects
22 we're going to save the world. But we can make
23 some kind of contribution by doing some simple
24 things. And some of that, someone mentioned this
25 morning the low hanging fruit. You know, lighting

1 and HVAC. And it's not just technically, it's
2 behaviorally, as well.

3 Some part of the study we wanted to
4 identify what are the obstacles; why aren't people
5 doing this if it's so obvious and so simple. And
6 so some of those challenges we identified, one is
7 financing. And there's two really dimensions to
8 financing, in my view.

9 One is that a lot of the projects we
10 identified are small. I mean they're less than
11 \$50,000. And that, in itself, is not really of
12 interest to, you know, lending institutions. The
13 time and effort that it takes to go through that,
14 you know, just really isn't worth it.

15 The second part is that a lot of these
16 businesses that we talked to, they're not in the
17 business of energy savings. It's certainly a
18 cost, but as an example we did an audit of a
19 hotel. And their money goes to filling rooms.
20 They don't make any money by having empty rooms
21 even if they save energy efficiency. So the first
22 priority is usually something else.

23 So, getting financing for these projects
24 is really key. And in that there's no real way to
25 aggregate these small projects into something that

1 could be bundled into a larger package that maybe
2 some larger institution would be interested in
3 funding. We saw that as a key, as an obstacle.

4 And a lot of these things, you know,
5 it's just awareness and knowledge. That people we
6 contacted and work with, that they just don't know
7 what the real opportunities are. And it's not on
8 the radar screen unless somebody bring it to their
9 attention.

10 The next thing is technical assistance.
11 Once you identify a project or maybe some areas of
12 opportunity you can actually go in and do the
13 analysis, take the measurements that you need, see
14 what your current usage is to identify the
15 technologies, estimate their impact. What's the
16 cost, what's the disruption. All those things
17 that go along with it. So there's a great need
18 there for technical assistance. It just doesn't
19 exist within these companies.

20 Next is the -- most of our work is
21 focused on the Mexican side. I think someone
22 mentioned earlier this morning, as far as energy
23 efficiency goes, there's a lot been done on the
24 U.S. side. So that our primary focus was on the
25 Mexican side.

1 But in that regard there really is no
2 energy services industry to the same degree or
3 magnitude that it is here. And those are the
4 people that end up driving those kind of things.

5 Lack of market data. That's sort of
6 related to the other. You know, if you have
7 market data about what's the potential savings
8 opportunities, maybe you can, I guess, interest
9 good businessmen to go after those.

10 And then also for the companies to know
11 that there's other companies within their industry
12 that are taking these steps. And here's what
13 their sort of energy consumption is per square
14 foot, or per employee, or whatever you use to
15 manage that.

16 Project champions. You know, nothing
17 happens without someone taking the lead and saying
18 we want to make this happen.

19 And then someone mentioned earlier this
20 morning about the regulatory environment,
21 particularly as far as alternative energy
22 projects. It doesn't support them.

23 Now, for those who were waiting, you
24 know, what are BEARS. We decided from our market
25 assessment to get focused, what's the best way to

1 go about it. And we said, you know, sort of this
2 top level, high level marketing effort isn't going
3 to work. We need to develop grassroots efforts.

4 So we said why don't we get teams of
5 local people and put them together and help them
6 facilitate, or facilitate with them, identifying
7 what is the right mechanism to implement or --
8 identify, implement programs within the region.
9 So we had to come up with an acronym, so we called
10 the BEARS the border energy advisory roundtable.

11 And what we wanted to do was get
12 stakeholders, we wanted to the maquiladoras,
13 companies involved, government agencies,
14 utilities, academia, people that really understand
15 some of these problems that can get involved. And
16 basically act as the planners for what to do in
17 that region.

18 And what we wanted to do different than
19 other sort of working groups like that is put
20 money behind it. And give them a budget. Say,
21 hey, here is "x" amount of dollars to go ahead and
22 identify what's going to work best in your area.

23 Examples of things that they could do
24 was openhouses, mailers that they would like that
25 would have the information about potential energy

1 savings, the audits we mentioned, and I guess two
2 things here.

3 One is we've actually started in Tijuana
4 and Mexicali. And I'm working with Manuel Garcia,
5 who's been just absolutely fantastic. And he
6 knows the local industry, he knows the people, the
7 companies. And so working with him we've been
8 able to identify some project opportunities.

9 And for him, in particular, he believes
10 our success is going to be tied to doing audits
11 and actually projects in that area that we can
12 take the local people to go see. We mentioned
13 this before. The difference is the audits we did
14 before were preliminary. These are financial
15 grade.

16 And so we want to work with these
17 companies. Say, hey, we'll do a financial grade
18 audit on the condition that you, you know, are
19 going to implement some of the recommendations in
20 there. And that we can actually publicize results
21 if you participate. And thanks to him we actually
22 have like three really good candidates. So that's
23 up and running.

24 And then we have another one in Ciudad,
25 Juarez which is just getting started, as well.

1 And they're doing some planning work with the
2 local government agency. It's a little bit
3 different, but that's what works there.

4 What works in our area is myself working
5 with Manuel and developing some of these prototype
6 facilities.

7 A couple things Rich wanted me to
8 mention. I haven't been too involved in these, so
9 my knowledge is not too deep. But these are two
10 other WGA initiatives.

11 One, I don't know how many of you, I
12 think, Commissioner Boyd, you attended the
13 Albuquerque North American Energy Summit. It was,
14 I think, in intent similar to what you're doing
15 here. It was a place to get information on what
16 the policy should be and the direction should be
17 for the Western Governors Association.

18 As part of that Governor Richardson from
19 New Mexico and Governor Schwarzenegger signed a
20 letter to take action -- and I can share with you
21 a little bit about what that is -- about energy.
22 Their vision is really two dimensional.

23 One is we're not going to get away from
24 our traditional sources, and so let's not take our
25 eye off the ball. That we need to do to continue

1 to use those in an efficient way and develop those
2 resources. As well as the energy efficiency,
3 solar, wind, geothermal on the other end. So it's
4 a combined approach.

5 Objectives from that: Protect the
6 economy from energy shortages and price spikes. I
7 think us in California are familiar with that.
8 And it's important.

9 Again, the diverse energy portfolio, not
10 to be too dependent on any one particular fuel
11 source. The growing demand in the west,
12 population growth, those types of things.
13 Environmental challenges. And take advantage of
14 new technologies.

15 I think the thing I want to point out
16 here as far as the Governors' policies that were
17 really the specifics in the letter. One was to
18 develop 30,000 megawatts of clean energy by 2015.
19 And then the other was the 20 percent efficiency
20 by 2020. And those were the two, I think, main
21 things that came out of part of that letter.

22 A couple other things to mention. That
23 they want to do this all on an incentive basis.
24 They wanted to and did form an advisory committee
25 to help them put together a plan to implement

1 this, which is due by 2006, June.

2 Rich wanted me to pass on that the
3 advisory committee has already been established.
4 It has its members. There's several key
5 subcommittees. Technologies are different,
6 transmission and solar power and so forth.
7 There's several subcommittees that he said they
8 still need to fill. So if there's interested
9 parties, you can contact him.

10 And then two other things that the NAD
11 Bank has, actually working with the CEC, that in
12 Monterrey that they had gotten some money -- I
13 think it was from the World Bank -- to actually do
14 the projects, but there wasn't money to do the
15 audits, so you really didn't know if you had a
16 project. And so you had a bit of a dilemma. And
17 so they partnered with NAD Bank and CEC to
18 actually do those audits in Monterrey.

19 And CSP is combined solar power
20 initiative with DOE. And basically what they want
21 to do is they have 350 megawatts of solar power in
22 the west right now. They'd like to actually
23 generate or get that to 1000 in the next five to
24 ten years. They'd also like not only to develop
25 those power sources, but also work with the

1 utilities and other people to develop the
2 incentives to make it commercially viable.

3 So, with that I thank you.

4 PRESIDING MEMBER GEESMAN: Thank you.

5 COMMISSIONER BOYD: Thank you. Give my
6 regards to Rich. I was at the Albuquerque summit
7 that Rich presented to the border Governors energy
8 worktable meeting we had there, this whole
9 program. And Manuel and I received it, and I'm
10 glad to see Manuel has got a BEAR going in Tijuana
11 now.

12 MR. OLSON: Okay, our next speaker is
13 Vince Signorotti of CalEnergy Geothermal. And he
14 will speak about some of their experiences in the
15 Imperial Valley and some of the projects there.

16 MR. SIGNOROTTI: Thank you. I
17 appreciate the opportunity to appear before you
18 today. It's a good opportunity for me to remind
19 you that it was a year ago, almost to the day,
20 that I appeared before the Commission.

21 We were present for your vote on Salton
22 Sea Unit 6. You were kind enough to act on staff
23 recommendation and approved that project a year
24 ago. This will be an opportunity to give you a
25 bit of an update on Salton Sea Unit 6, and to tell

1 you a little bit about our existing project.

2 First of all I'm going to break this
3 down into four categories: Tell yo a little bit
4 about the parent company; a little bit about our
5 existing operating in Imperial County at the
6 Salton Sea; talk about some of the environmental
7 attributes of a geothermal project; and then, as I
8 said, go back to Salton Sea Unit 6.

9 First of all, MidAmerican Energy
10 Holdings Company, which is the parent to
11 CalEnergy, is primarily an energy services
12 provider. We do have a real estate platform which
13 happens to be a very large part of the company.
14 But primarily we are an energy services company.

15 We have two regulated utilities, one in
16 England where we operate in the northeast out of
17 Newcastle. Another back in the midwest where we
18 operate in four states, Iowa, Illinois, South
19 Dakota and parts of Nebraska.

20 We also own two natural gas pipeline
21 companies, which together constitute the second
22 largest gas pipeline company in the country.
23 Those are Kern River and Northern Natural. And
24 finally, CalEnergy, we operate 15 plants in the
25 United States, 11 of which are geothermal, three

1 of which are cogen, and one of which is combined
2 cycle.

3 We're headquartered in Des Moines, Iowa.
4 It's a large company, almost 12,000 employees and
5 9000 megawatts of net generation. I bring this up
6 simply to illustrate the fact that in order to
7 develop geothermal energy, you have to have the
8 financial wherewithal to do so. Geothermal energy
9 is capital intensive. And nowhere is it more
10 capital intensive than at the Salton Sea. and so
11 the company, itself, has the financial wherewithal
12 to move forward with projects such as Salton Sea
13 Unit 6.

14 We've been working in the Imperial
15 Valley for a number of years. About 22 years ago
16 we brought the first geothermal plant online at
17 the Salton Sea. That was a small demonstration
18 plant. At the time it was a joint venture between
19 Union Oil Company of California and Southern
20 California Edison.

21 And what that did back in 1982 is it
22 demonstrated that the process technology existed
23 to handle the geothermal resources at the Salton
24 Sea, which are unique in the world. It's a very
25 hostile resource; it's very hot; it's prolific.

1 But it required special technology to handle the
2 fluids once you brought them to the surface.

3 Over the years we've developed nine
4 additional plants, and today we produce about 340
5 megawatts of energy, most of which is sold under
6 contract, under long-term contract to southern
7 California, to SoCalEd.

8 The existing project is along the shore
9 of the Salton Sea. I'll talk a little bit more
10 about the significance of being near the Salton
11 Sea. As you can see, we have the ten plants
12 scattered around over about a 7.5 mile area.

13 As far as geothermal in California is
14 concerned, you can see that we have about 1600
15 megawatts online. Imperial County generates the
16 second largest number of megawatts at 475. Lake
17 and Sonoma Counties combined produce the largest
18 amount of energy. That's, of course, from the
19 Geysers. And then Inyo County at the Coso field,
20 and a small project in Mono County, and also a
21 very small project in Shasta County.

22 The potential for California is
23 significant. Industry estimates believe that the
24 total new potential is somewhere in excess of 2600
25 megawatts. And that most of that will come from

1 the Imperial Valley.

2 Some of the estimates that have already
3 been discussed today put the potential at over
4 2300 megawatts. And the most recent study that
5 was conducted at the Salton Sea suggests that the
6 Salton Sea alone could produce that amount of
7 energy.

8 So, it's comforting for me to hear the
9 comments about the importance of renewable energy
10 in the future of southern California in
11 particular; and also, of course, geothermal energy
12 from Imperial County.

13 This slide was taken from the study that
14 I previously mentioned that was completed about
15 two years ago. And you can see that the Imperial
16 Valley is along the San Andreas Fault, which
17 accounts for a lot of the geothermal activity
18 that's present.

19 The Salton Sea is not the only field in
20 Imperial County. There are two other fields, one
21 a little bit south of El Centro at Heber, where 90
22 megawatts of energy is produced from two plants.
23 And at the East Mesa, which is about 20 miles east
24 of El Centro where another 45 megawatts of energy
25 is produced. Those two fields do have some

1 potential for increased output. However, it's
2 negligible.

3 There are other areas in Imperial County
4 that have either proven resources or highly
5 prospective resources, commercial resources, in
6 addition to those at the Salton Sea.

7 And at the Salton Sea you can see that
8 we have about 340 megawatts of energy being
9 produced today. We have another 200 megawatts on
10 the drawing board with Unit 6. But the industry
11 experts believe that if fully developed the Salton
12 Sea field alone could produce, support over 2300
13 megawatts of energy. Obviously the largest
14 geothermal field anywhere that has been discovered
15 to date.

16 What's significant about this slide is
17 that not all of that resource is available to us
18 today. You can see the shoreline of the Salton
19 Sea. A lot of the resource is beneath the Salton
20 Sea. We don't drill from platforms. We can't
21 directionally drill to access those locations.

22 The significance again is that the
23 Salton Sea is likely to become a much smaller body
24 of water over the course of the next 10 to 15
25 years, the result of a water transfer that was

1 completed a year or so ago between San Diego and
2 the Imperial Irrigation District. And I believe
3 you'll hear a little bit more about that later.

4 But even if you look at the proven field
5 there's a significant amount of additional
6 development potential onshore.

7 Going back to a lot of what has already
8 been discussed, geothermal is a clean energy. If
9 you've ever been to the Salton Sea, and I know
10 that some of you have, you would note that we
11 coexist not only with agriculture, but we are
12 adjacent to the Salton Sea Sonny Bono Wildlife
13 Refuge. So we have demonstrated an ability to
14 coexist with those two industries.

15 The process of going through the
16 certification for Unit 6 illustrated our
17 compatibility with those two industries, as well
18 as a variety of other areas -- in a variety of
19 other areas.

20 This slide illustrates the benefits of
21 geothermal energy when compared to fossil fuel
22 plants. These numbers you can see 22 million tons
23 of carbon dioxide, 200,000 tons of nitrogen oxides
24 and 110,000 tons of particulate matter. This is
25 from geothermal within the United States. Not

1 just at the Salton Sea or in California. But
2 these are significant numbers. So we think that,
3 again, it illustrates the environmentally
4 responsible nature of geothermal energy.

5 We're looking at what has happened over
6 the course of the last few years. Again, a lot of
7 this has been discussed by previous speakers. We
8 believe that it's important to diversify.
9 Planning is vital to the long-term goals of this
10 region. And we're pleased that Salton Sea Unit 6
11 falls into this category very nicely.

12 This slide very soon is going to be, I
13 believe, a little bit dated because we're going to
14 very soon come to the Commission with some changes
15 that have occurred over the year that has passed
16 since you approved the project, and talk to you
17 about some of the changes that we envision with
18 regard to Salton Sea Unit 6.

19 But some of these things are still so
20 true today. It's a baseload plant; it's green
21 energy; it's proven technology. And it's instate
22 renewable.

23 Here again you can see the existing
24 facilities. When compared to where Salton Sea
25 Unit 6 is going to be developed, it is an infield

1 development. And what I mean by that is that of
2 the production wells that are going to be drilled
3 to support this plant, we're not going to need to
4 drill any exploration wells, or delineation wells,
5 in order to prove that the resource is there. We
6 have a high degree of confidence in the reservoir
7 in our knowledge of the reservoir to move forward
8 with this plant without the benefit of exploratory
9 wells.

10 And that goes for both the production
11 wells, the 11 now production wells that we expect
12 to drill to support this facility, and the eight
13 injection wells that will be drilled.

14 At 185 megawatts it's almost twice as
15 large as any plant constructed in the country.
16 That number is going to increase. In October of
17 this year we amended the offtake contract with
18 Imperial Irrigation District.

19 One of the results of that amendment is
20 a larger plant, somewhere in the neighborhood of
21 195 megawatts net. It extended the contract from
22 20 years to 30 years. A variety of other
23 components within the contract were changed to
24 make it a little bit -- to conform a little bit
25 more closely to what IID's projections are for

1 power needs.

2 I've already touched on some of these
3 things. The fact is that it's a fluid-dominated
4 field. We sell most of the energy to Southern
5 California Edison under long-term contracts.

6 Talk just a little bit about some of the
7 benefits. Geothermal energy produces a lot of
8 jobs. Unit 6 will result in about 70 new, full-
9 time jobs in a county with a very high
10 unemployment rate of about 20 percent. Lots of
11 construction jobs over the 24 to 26 months it will
12 take to build this facility.

13 We already employ about 230 folks in the
14 Imperial Valley, making us one of the largest
15 private sector employers in Imperial County.

16 And finally, putting some numbers and
17 percentages to some of the environmental benefits
18 of the facility. A 92 percent reduction of water
19 consumption; again, a critical component. Huge
20 reductions in VOCs and CO2 and PM10s.

21 Going back, this second bullet goes back
22 to a CalPERS study that concludes that renewable
23 energy sources produce more jobs than conventional
24 fossil fuel power plants. And that geothermal is
25 good for the economy just from that standpoint

1 alone.

2 We hope that in 2005 we'll be breaking
3 ground on this facility. As I said, it will take
4 somewhere between 24 and 26 months to construct.
5 Our tentative date of commercial operation is
6 2007. A number of things have to fall in place
7 between now and then, but we're optimistic and
8 confident that we can make those things happen.

9 So I thank you for your time, and will
10 be here to answer any questions.

11 MR. OLSON: Commissioner Geesman, I
12 don't know if you wanted to take comments from the
13 Imperial Irrigation District at this point, or
14 wait until --

15 PRESIDING MEMBER GEESMAN: This might be
16 a good time to do that, actually. Orlando Foote.
17 Not sure I pronounced that right.

18 MR. FOOTE: Good afternoon; my name is
19 Orlando Foote. I'm a private attorney in El
20 Centro and elsewhere. I do work primarily for
21 Imperial Irrigation District on the energy side.

22 And I provided the request to comment
23 mainly as a placeholder. I did want to provide
24 some introduction, but first mention the fact that
25 we're sorry that we didn't have a more formal

1 presentation. Unfortunately we didn't receive
2 notice of this hearing, and, in particular, a copy
3 of the agenda, until late last week. So we didn't
4 really have an opportunity to put something formal
5 together.

6 Having said that, however, I did want to
7 make sure that the Commission and others in
8 attendance here are aware of IID's presence, of
9 IID's interest in participating in the efforts
10 that have been undertaken by the Commission to
11 help out California, to help out Mexico, and also
12 to help out the entire southwestern region in
13 addressing its resource adequacy planning.

14 We are engaged in a number of efforts
15 which I would ask your indulgence to permit me to
16 have one of the other folks from IID Energy to
17 speak briefly about.

18 But we regard ourselves as somewhat at
19 the crossroads of that highway or freeway that's
20 been mentioned several times, both to the south,
21 to the north and to the east. And we have a great
22 interest in participating in the efforts, and are
23 doing so to a considerable extent.

24 Vince Signorotti mentioned our agreement
25 with CalEnergy with regard to the Unit 6 plant.

1 We're pleased about that. We're pleased about the
2 terms and conditions. And we're pleased that it
3 represents close to 20 percent of our entire
4 energy resource portfolio.

5 So we think we're good citizens. We are
6 a municipally owned entity. We are our own
7 control area. That having been said, however, we
8 want to be and are, I'd like to emphasize, are
9 good citizens, and we want to continue with that
10 effort.

11 That having been completed, I'd like to
12 introduce Juan Carlos Sandoval, who is employed by
13 Imperial Irrigation District, to talk a little bit
14 more about what it is that IID is doing with
15 regard to the planning efforts here in the
16 southwest, and provide the Commission or the
17 Commissioners and the others with a little bit
18 more information.

19 So, if I can introduce Juan Carlos.

20 PRESIDING MEMBER GEESMAN: Excellent.

21 MR. SANDOVAL: Good afternoon. I would
22 like to give a brief presentation. This
23 presentation was given to the CEC last May for the
24 purpose of making an assessment of IID's effort in
25 providing transmission to the geothermal expansion

1 in the Salton Sea area.

2 I'm going to use some of these slides
3 just to give my presentation. Oh, let me go back
4 again. IID is a publicly owned utility. We are
5 located in the southeast corner of the State of
6 California.

7 We provide electric services to a large
8 area, the whole Imperial County and partially in
9 Riverside in the north. We are also the sixth
10 largest utility in California. And we are also
11 one of the four control areas in the state. We
12 are not part of the California Independent System
13 Operator.

14 In 2004 our summer peak demand was 840
15 megawatts. The energy that we delivered to our
16 customers in 2003 was accounted for 3.2 gigawatt
17 hours. We have 500 megawatts of internal
18 generation resources, about 350 megawatts of steam
19 units, and 150, 170 megawatts of gas turbines or
20 peaking units.

21 We also import our generation resources
22 from the east, from Arizona, New Mexico area. We
23 have about 100 megawatts from a coal unit in San
24 Juan in the Farmington area. As well as a share
25 in the Palos Verde area nuclear plant in a power

1 purchase agreement, long-term power purchase
2 agreement from the Southpoint Power Plant.

3 We are located in a very strategic
4 place. Not long ago we used to say that we were,
5 you know, strategically located in the middle of
6 Arizona/California, you know, in that transmission
7 corridor between the two areas.

8 Now, with this geothermal expansion and
9 the potential for that geothermal energy, that has
10 changed a little bit, the perspective, you know.
11 We also want to be a major player, and we're a
12 major player in this effort, you know.

13 We have been participating in regional
14 planning forums like the STEPP process and the
15 CERT. And in coming up with a plan, a
16 transmission plan which will provide transmission
17 to the wheeling of this energy to the State of
18 California. In a very high level, you know, we
19 want to use this low hanging fruit concept.

20 You know, we have existing transmission
21 facilities in the area that can be utilized,
22 operate to form a transmission corridor from the
23 Devers area, North Palm Springs area, all the way
24 down to Imperial Valley. And this transmission
25 corridor could be up to 1600 megawatts in

1 transmission capacity, total transmission
2 capacity.

3 We are also major players in
4 participating in the 500 kV project. We are
5 taking the CEQA lead, together with CADNIS
6 (phonetic), and participating in the 500 kV line
7 that will run from Blythe to Devers area, north
8 Palm Springs area. As well as currently and
9 recently we are in a conversation with San Diego
10 Gas and Electric in making an assessment for IID/
11 San Diego Gas and Electric partnership in the 500
12 kV line that will run from Imperial Valley to the
13 San Diego area.

14 Also we are participating with our
15 neighboring utilities such as APS, you know, in
16 enhancing the transmission corridor from the Palos
17 Verde area. We have conversations right now to
18 expand, you know, and to build a new 500 kV line
19 from Palo Verde (indiscernible) to North Jila,
20 Yuma area. And from there upgrade one of the
21 existing transmission lines from the Yuma area
22 into Highline. So we can have the needed
23 transmission, additional transmission from Palos
24 Verde area into California.

25 So, again we are a major player. We

1 want to -- we are taking an active role in all the
2 regional planning. And we want to do whatever is
3 best, you know, for the State of California, as
4 well so it's helping, you know, our customers to
5 serve future load growth.

6 Do you have any questions?

7 PRESIDING MEMBER GEESMAN: Thank you
8 very much, Mr. Sandoval. Good to see you again.

9 MR. SANDOVAL: Thank you.

10 MR. OLSON: Just a couple comments
11 before we go into our next session. There were a
12 couple other speakers that wanted to speak here
13 today and could not attend this event. One was a
14 representative -- actually three different
15 representatives from the North American
16 Development Bank. They asked to speak at a future
17 workshop.

18 They are a definite source of financing.
19 They have several hundred million dollars a year
20 that they're investing in right now wastewater
21 treatment, water treatment, infrastructure
22 projects. They are now open to renewable energy,
23 energy efficiency, waste recovery.

24 And they operate on both sides of the
25 border. They can provide up to half of the debt

1 or equity in a project.

2 And we also had comments from a couple
3 different wind power developers who are proposing
4 and under some discussion with officials in Mexico
5 about wind power projects in Baja.

6 So at this point we'd like to go to our
7 next section, which will be on the energy and
8 environmental related impacts of what we've been
9 talking about today.

10 And I'd like to introduce Eileen Allen
11 from the Energy Commission Staff, who will
12 introduce all the speakers.

13 MS. ALLEN: Hello. I'm from the Energy
14 Commission's environmental office. The first
15 panel will be a broad discussion on community
16 concerns and environmental justice. We'll start
17 off with Bill Powers, who is the San Diego area/
18 Imperial Valley Chair of the Border Power Plant
19 Working Group. His counterpart in Tijuana will
20 follow him, Carla Garcia Zendejas.

21 Followed by Carl Zichella, the Western
22 Regional Director for the Sierra Club. Followed
23 by Araceli Samaniego representing Grupo de
24 Ecologia y Conservacion de Islas.

25 MR. POWERS: I'd like to thank the

1 Energy Commission for hosting this workshop and
2 look forward to the future workshops on this topic
3 here in San Diego in the spring.

4 And I think I'd like to use my time,
5 maybe five minutes of it, to talk about power
6 plants and another ten minutes to talk about
7 liquified natural gas terminals.

8 One-minute background of the Border
9 Power Plant Working Group is we formed, those of
10 us that have worked in the environmental area for
11 years in the border region, a binational group,
12 about four years ago in what, at the time, was a
13 crisis environment of the Mexican side of the
14 California/Baja, California border being a major
15 power plant development area.

16 And since that time we've also gotten
17 involved pretty heavily in analyzing liquified
18 natural gas terminals. But ultimately what's
19 happened is that we have evolved into a bit of a
20 watchdog on energy issues. Not just tactical
21 issues like this plant and that plant, but also
22 what's the game plan for energy over time in the
23 region.

24 And one question that went unanswered
25 when Dave Geier was here from SDG&E and when Steve

1 Hoffman from the Chamber of Commerce was here, is
2 that what is the plan. Are we working under the
3 idea that we are going to be once again re-
4 regulating, become a regional utility vertically
5 integrated with power production responsibility,
6 basically taking care of the region with regional
7 resources, while having some lines available to
8 tap into when we need additional power?

9 Or are we on the model we were on when
10 the Mexicali plants were built four years ago
11 where we envisioned super highways of transmission
12 with potentially minimal power development in our
13 immediate region, accessing power from long
14 distances?

15 I'm a big fan of door number one, which
16 is taking care of yourself and having supplemental
17 resources come in. But I think until we make
18 clear what that plan is, it's really hard to get
19 consensus on should Valley-Rainbow be built,
20 should we repower the coastal power plants, if we
21 haven't determined what the framework is?

22 Talking about specifics, we did file a
23 lawsuit against the Department of Energy a couple
24 of years ago. And we just got the final
25 environmental impact statement from them yesterday

1 on this. I haven't read it yet, though I did
2 glance through the response to public comments.
3 And I think without reading it I know what the
4 contents are, which is, you know, relatively
5 negative responses to many of the issues. But
6 this is a lawsuit. We'll be back in court, and it
7 looks like we'll probably work that out there.

8 The other comment I wanted to make on
9 power plants, which is in the same context of
10 what's the plan, is Dave Geier mentioned the
11 southwest transmission expansion plan process,
12 which they meet every three months, a lot of
13 utility and transmission experts.

14 And one of the options that has been on
15 the table for our region is that instead of
16 building Valley-Rainbow, instead of building
17 greenfield transmission through San Diego County,
18 and I think Dave pointed out just how difficult
19 that can be with all of the permission required,
20 is that we do have a completely binational option,
21 which is the 230 kV CFE lines that parallel our
22 southwest power link which Dave indicated as
23 bottlenecked. And that those transmission lines
24 are on the table as an option for upgraded, to
25 give us regional reliability enhancement.

1 And I think that is -- didn't show up in
2 the presentation, but an issue that the CEC would
3 be of great use in helping us look at. Because,
4 as you know, in every region there are a lot of
5 political issues going on. And I think it's very
6 good to have some exterior set of eyes looking at
7 what decisions we're making here.

8 But, again, until we define, if we're
9 going to be a re-regulated utility region and
10 we're going to be looking at transmission super
11 highways, it's going to be hard to get any
12 consensus on these various projects.

13 Switching over to LNG, the first thing
14 I'd like to do is hand -- I'll just hand these
15 around for review. One is the -- just some of the
16 discussion topics on LNG. And the handouts are an
17 announcement yesterday in The L.A. Times that a
18 million-dollar-plus high-powered ad campaign has
19 been launched to counter community and
20 environmental activists due to the obstacles that
21 it's put in the path of building LNG terminals in
22 Baja, California/California.

23 And also a response by the activists to
24 that campaign which actually kicked off in San
25 Diego about a week ago. But, one of the reasons

1 for handing that out is that this is, to us,
2 exactly the problem that we have in California
3 when it comes to making public policy. Is that
4 we've been clamoring for a year to have an
5 evidentiary process to sort out the fundamentals
6 of LNG, supply and demand of gas, cost of LNG,
7 supply diversity, supply integrity.

8 And in response to that, which has been
9 denied before the California Public Utilities
10 Commission, we get a million-dollar-plus air-and-
11 ground war as the PR campaign organizer calls it,
12 to change the hearts and minds of Californians,
13 without actually discussing the fundamentals of
14 the issue. And I think it's important for people
15 to know that.

16 Now, I'll jump into this presentation.
17 I'm only going to show about half of it, but if we
18 could go to slide -- oh, do I have control of
19 that? All right.

20 I think my colleague, Carla Garcia
21 Zendejas, will talk more about the environmental
22 end. But I briefly want to talk on the fact that
23 we do have an Energy Action Plan in California
24 that was passed in May '03 by the CEC and the
25 CPUC.

1 It does call for evaluating LNG. But it
2 doesn't call for endorsing it. It calls for
3 evaluating it. And also warns against the dangers
4 of relying too heavily on natural gas and the
5 potential market manipulation.

6 It does also call out the floating order
7 that has been talked about today of relying on
8 efficiency first, renewables second, and only
9 building additional gas supplies if the renewables
10 really aren't up to snuff to take the greater
11 megawatt requirement.

12 And the backdrop of this is that we're
13 steadily increasing our demand on natural gas in a
14 market environment where we have seen many at
15 least attempts at manipulation. And it seems a
16 third of the proceedings before the CPUC have to
17 do with natural gas market manipulation
18 investigations.

19 So the fundamental question that we have
20 not debated before the California Public Utilities
21 Commission is do we need it. And California uses
22 about 10 percent of the natural gas consumed in
23 the United States, about 6 billion cubic feet a
24 day out of 60 billion cubic feet overall. Of
25 which about a third of it is purchased for us, the

1 little guys, the homeowners and the small
2 businesses by our utilities.

3 And this is just a nice chart of the
4 pipeline networks. But I think a lot of people
5 haven't been involved in this on a day-to-day
6 basis don't realize that our gas demand in
7 California is currently declining. This is the
8 PG&E, the brown bars are their annual gas
9 consumption. This is SDG&E and SoCalGas combined,
10 dipping in 2006 and rebounding to 2002 levels in
11 2016.

12 And it's important to know that we do
13 talk about a steadily increasing demand for gas in
14 California, but it's relative to us dropping into
15 a bit of a hole in terms of our demand, such it
16 will eventually get back to where we were in about
17 10 or 15 years -- or 10 years or so.

18 This is actually wrong. This says
19 combined U.S. and Canadian production will
20 increase by 20 percent by 2025, or 50 percent.
21 It's actually 20 percent. The Canadians, 20
22 percent domestically and it's flat in Canada.
23 Canadians have changed their production program
24 for a couple of policy reasons, and they won't be
25 producing as much gas.

1 We've got flat production in Canada. We
2 have our projections at 20 percent increase in
3 production over the next 25 years.

4 This actually differs sharply with what
5 a number of LNG developers are saying, which is
6 that we're running out of domestic supplies; we
7 desperately need another supply to diversify and
8 to avoid a crisis and to lower prices.

9 This is from the USDOE energy
10 information administration. That red line is
11 domestic production. The black vertical line is
12 the year 2000. And you can see it modestly and
13 steadily rising over the next 20 years.

14 This is what Sempra Energy presented at
15 the kickoff workshop that we had in San Francisco,
16 the CPUC, CEC a year ago for this gas proceeding.
17 And I was on this panel. This basically shows the
18 government's information in the blue, and then
19 Sempra's predictions in the red, which is
20 basically a collapse of gas production over the
21 next ten years.

22 And the statement that they made, which
23 leaves little to interpretation, California has
24 little choice but to allow the development of LNG
25 terminals. The only decision is where and how.

1 And that has actually been the tone of that
2 proceeding. That we must have them, and the only
3 question is where and how.

4 This is the DOE's projection of growth.
5 And you can see the red line is the only real
6 growth line. That's electric generation. And so
7 the question is not only for California, but the
8 country, is are we simply going to hook our star
9 to more and more gas-fired generation if we have
10 other options.

11 DOE, this group energy information
12 administration, this is part of their job is to
13 evaluate these national trends in LNG. Their
14 projection for price is that domestic gas will be
15 under \$4 mmBtu through 2025. And that importing
16 LNG to California is more than a \$4 mmBtu
17 proposition. Which means if you're looking at
18 this data, DOE data, it's hard to justify at least
19 to a market economy how you would build an LNG
20 terminal in California, which is what they
21 basically indicate in their document. That we
22 think that if there is a terminal built on the
23 west coast, it will be in Baja, California.
24 Slightly less costly. But that won't happen till
25 2020. Not next year, not five years from now, but

1 2020.

2 This is their price chart, fairly
3 recent. This includes these modified Canadian
4 production numbers that were presented in our
5 proceedings. And I think this is appropriate.
6 They show a range, domestic gas could cost out at
7 3.80, could be as high as \$5. But, if you're
8 looking at a product like LNG, where you probably
9 need a forward price in the \$5 range to make it
10 work in a market, it's going to be hard to
11 convince investors this is where they want to sink
12 \$4- or \$5-billion if it's marginal in any way.

13 And a couple more slides and I'll go
14 ahead and wrap this up. We spent a lot of time
15 meeting with Governor Schwarzenegger's cabinet
16 secretaries and staff. And one of the things I
17 point out with them is that when the Governor was
18 a candidate, and you should recall his candidacy
19 was pretty quick, in his policy statement he
20 indicated that current LNG proposed projects for
21 construction at Baja, California will facilitate
22 imports from Bolivia, Alaska and other sources.

23 And I chide his secretary of energy or
24 under secretary, Joe Desmond, for this statement,
25 since there's only one project that meets those

1 requirements, which is the Semptra/Shell project at
2 Costa Azul. And that probably don't want to be
3 that explicit in your policy statement.

4 But we've just gone through a rulemaking
5 over the last year where LNG has been recognized
6 as inherently beneficial without any discussion of
7 the underpinning framework of that assumption.

8 We were actively opposed by Semptra in
9 our request for an evidentiary hearing to flesh
10 this out, which I think is important. And finally
11 we're in a position where a lawsuit will be filed
12 in this case, again attempting to get an
13 evidentiary hearing on the merits of LNG as
14 imports.

15 We've gotten a lot of political support
16 on this. A letter signed by 24 members of
17 Congress was sent to CPUC President Michael Peevey
18 three weeks ago calling for evidentiary hearings
19 which he did reply to them saying that would not
20 happen. And we hope to get additional political
21 pressure on the process so that we ultimately have
22 an opportunity to discuss this.

23 And final comment, or almost, is our
24 core concern with LNG is not so much that the free
25 market be allowed to run its course. What we're

1 concerned about is that the contracts that will be
2 used to support these projects, which might not
3 have made it on their own, are what they call
4 ratepayer core customer gas contracts. These are
5 risk-free contracts where the price is passed on,
6 or the cost is passed on to you and me, the
7 ratepayer.

8 What's happened in that CPUC proceeding
9 is that SoCalGas, which is owned by Semptra,
10 requested dropping two major gas contracts or
11 supply commitments from El Paso and Transwestern
12 that total about 1500-million cubic feet a day.
13 Roughly the equivalent of two LNG terminals were
14 dropped from the portfolio potentially. And
15 obviously leaving them in need of additional gas
16 supplies. And what we might get in exchange for
17 that are LNG terminals.

18 And because of the nominal economics in
19 the free market of an LNG terminal, it is our
20 presumption that because these types of
21 transactions are not banned, that that is how
22 these will be financed, on rate-based contracts,
23 risk-free. Doesn't matter where the price of gas
24 goes. The project will make money.

25 Just a final comment on the upside,

1 which is that we definitely have alternatives.
2 And they've already been touched on and I won't
3 spend any time on this as a wrap-up. But CEC's
4 data, the Department of Water and Power data,
5 indicates that the cheapest megawatt hour is the
6 energy conservation megawatt hour. We've got a
7 lot of untapped energy efficiency, low-cost
8 resources that could displace these gas projects
9 and the whole energy infrastructure system. As
10 well as low-cost renewable, geothermal that Vince
11 talked about, wind and some forms of solar.

12 And we really haven't scratched the
13 surface. Yes, California's out in front of other
14 states, but that doesn't mean that we've really
15 tapped into the full potential that we have in the
16 state.

17 And finally a factor that we didn't talk
18 about in the proceedings, but is looming large is
19 community choice. We've got many cities in
20 California that signed onto community choice to
21 pursue a more aggressive renewables portfolio, up
22 to 40 percent. And that we haven't looked at the
23 impact of these types of commitments in assessing
24 our gas demand in the gas proceeding.

25 And so, you know, our border perspective

1 is that energy policy is somewhat in disarray at
2 the state level. And that we've really been put
3 in the position of advocating hard for individual,
4 you know, protecting individual projects as a
5 result of that framework not being implemented.

6 And we really look forward to working
7 with the Commissioners and the CPUC on bringing
8 this together as a coherent plan that is primarily
9 in the public interest. And not necessarily in
10 the facilitation of markets interest.

11 Thank you.

12 MS. ALLEN: There will be copies of Mr.
13 Powers' presentation on the back table in a few
14 minutes.

15 MS. ZENDEJAS: Buenos tardes. I'm Carla
16 Garcia Zendejas from Tijuana. I'm from the Grupo
17 de (indiscernible), also known as the Border Power
18 Plant Working Group. And Bill has already
19 mentioned more or less how we got started, but
20 I'll tell you a little bit more about the story.

21 Basically this is how we got started,
22 which is our concern was power plants being built
23 on the Mexican side of the border, a huge amount
24 of power plants. And we started asking ourselves
25 why so many, were they needed, et cetera.

1 And this is a picture taken from the
2 U.S. side of the border. And this is a power
3 plant in Mexicali.

4 He already mentioned that a large group
5 of organizations, and this is a list that is
6 somewhat dated, but there are a lot of
7 organizations from both sides of the border who
8 continue to work together. And as I said, we did
9 start on border power plants, and that's how we
10 got our name, basically.

11 But after the power plants we found out
12 about a lot more issues. And one of the main
13 points that we initially were surprised with was
14 the fact that it was the first time in history
15 that 100 percent of the power from one of these
16 power plants is going to be exported. And, again,
17 we started calling them energy maquiladoras
18 because our land, our air and our water are going
19 to be used, but all the benefits are going to go
20 to -- come to your side of the border.

21 So that was a very great concern. And,
22 you know, trying to understand do we need them; is
23 this a part of your energy crisis; does it have to
24 do anything with our energy crisis.

25 And Bill mentioned this, as well. We

1 did file a case against the Department of Energy
2 and basically we filed the case against the
3 Department of Energy here in the U.S., just a
4 couple blocks away. Judge (indiscernible)
5 Gonzales heard the case. And we basically sued
6 the Department of Energy because they did not do a
7 proper environmental impact study in issuing the
8 permit for the transmission lines.

9 And basically we won. It's a long
10 story, but we won. And as you see, we just got
11 the final -- the DOE had to do a complete EIS
12 finally and it's issued and we'll see what it
13 says. If you want copies and want to help us
14 read, we'll have some for you.

15 So, we found that obviously not just
16 about the power plants, it has to do with
17 pipelines, and the fuel that's going to be having,
18 you know, making these power plants work.

19 So when we found out about the pipelines
20 unfortunately in the case of the Baja Norte
21 pipeline, which you've heard about all day long,
22 it was very surprising when we find out that it
23 was already in place. This is a picture of
24 Tecate. It went through and I'm an environmental
25 lawyer who thinks that if you protect people's

1 health you will, for the most part, protect
2 people's environments and birds and bees, et
3 cetera, et cetera.

4 So, if you worry about people first,
5 you're usually doing what you're supposed to. So
6 in this case I'm going to -- let's say that we
7 ignore all the trees and the forests and the
8 pinyon trees, et cetera, that were devastated.
9 Let's ignore that fact in this case because this
10 is where the forest was. This is, you can see all
11 the way where the pipeline is going through all
12 the way back in the hills.

13 But the problem here in Tecate was that
14 it destroyed this archeological site. This was a
15 declared archeological site in Mexico. And the
16 archeological institute in Mexico did not know
17 about it. And this is just one more factor in the
18 fact, the problem with issuing permits or issuing,
19 I don't know, projects for development in a
20 vacuum. You know, it has nothing to do with
21 environment, it has nothing to do with culture, it
22 has nothing to do with people's health.

23 And if you make a decision on that basis
24 you're going to have problems. Because everything
25 you have to do with constructing anything anywhere

1 has to do with a lot more things, not just that
2 space you're building on.

3 So this was a huge, huge devastation of
4 this archeological site. The (indiscernible) and
5 the (indiscernible) indigenous peoples, you know,
6 these are no longer existent, so it was a very
7 surprising moment. And we decided that we wanted
8 to be prepared for what was next. And we tried
9 to.

10 This may seem simple enough, but we had
11 to -- and we've met with Chevron and Semptra and
12 Shell, et cetera. And we have to be ten times
13 more prepared than we expect to be, they expect us
14 to be. Because we have to know what we're talking
15 about.

16 And it's hard to find information, but
17 thanks to Bill and (indiscernible) and wonderful
18 scientists, they help us understand what's going
19 on.

20 As far as public participation, I do
21 consider this a triumph. Unfortunately, Mexican
22 public participation within development projects
23 is very late in the process. Basically we're just
24 used to legitimize most of the projects. There is
25 a public participation moment in any sort of large

1 development project within our environmental law.
2 But by the time you know about it, by the time
3 you're there, by the time, if you get the
4 environmental agency to actually do a public
5 hearing, which is discretionary. If they do it,
6 which I do consider this a success, because there
7 were actual public hearings for both the Semptra
8 and the Shell site, because they were separate
9 sites in the beginning.

10 It was too late. There are wonderful
11 environmental officials now in the government
12 agency that would have wanted to do more. But the
13 decision, for the most part, was made by the time
14 we got to the table and were able to comment on
15 this.

16 So this was a timeline. The actual file
17 is about 6000 pages of documents. And these
18 documents were supposed to be ready in September
19 of 2002, the Semptra and the Shell projects. And
20 we only had the actual documents in our hands in
21 January of 2003.

22 Days after that our environmental agency
23 said that they were holding public hearings,
24 which, as I said, is a very good thing. It's
25 probably the first time in history in Baja,

1 California that we have a public hearing on
2 anything, on a project that size.

3 Unfortunately days later you have had to
4 prepare and read through these documents to go to
5 these public hearings to have a say in what was
6 going on. And as you can see, as I said, it's a
7 very grueling process. And it's not just about
8 information; it's about understanding the
9 information, being knowledgeable enough to have a
10 say and not just -- and there were wonderful -- it
11 was a wonderful event.

12 There were fishermen and community
13 members, teachers, students, archaeologists,
14 marine biologists, everyone and everyone who could
15 be there was there, prepared; had dotted their
16 i's; had sent every form they needed to send in to
17 be there.

18 And the (indiscernible) was very
19 impressed. They were very surprised to see that
20 level of participation in Baja, California. They
21 did not expect it.

22 But as I said, we tried to be as
23 prepared as we could be. But it didn't help. And
24 many people were there, I'm not against it, I'm
25 not for it, I want to learn about it; I want to

1 know what it's about. Because the bottomline
2 question was what is the benefit for Baja,
3 California. And nobody could give us a good
4 answer to that.

5 Even a few weeks ago -- a few weeks ago,
6 a few months Semptra and Shell, that are now a
7 joint venture, and now set the construction jobs
8 to 3000-some construction jobs that were going to
9 be had will not be had because they need very high
10 tech construction workers. So that is also out
11 the window.

12 And this is one of the sites, this is
13 Chevron Texaco's location. And I know -- I
14 believe Araceli will touch a lot more on the
15 marine biology, et cetera, et cetera.

16 So, as I said, you know, there's -- I
17 wrote, you know, let's forget about endangered
18 species, marine mammals, migratory whales; let's
19 forget about, you know, -- if we start forgetting
20 about all that, we have to think about people.

21 And close to these sites, close to the
22 Ensenada site is the Bajamar community where the
23 golf course is there, people living there. And
24 we've asked every scientist known (indiscernible)
25 experts on LNG in the U.S. , who have said

1 bottomline, these LNG terminals should not be
2 close to population centers.

3 And they're wonderful people. In Long
4 Beach they're trying to educate people about that.
5 People like (indiscernible) in (indiscernible),
6 California, already educate their community and
7 were able to stop a project that was going to be
8 in the middle of their community.

9 And as I said, we're not saying that
10 it's -- if it's needed, again, if we need this,
11 let's find the best place to put it there. But
12 unfortunately there are problems with these
13 regassification terminals.

14 I mention the communities. They will
15 change with the economy of Baja, California. It's
16 based on tourism. Almost \$3 billion were
17 generated in 2003 from tourism, from surfing, from
18 people coming down. And when you start putting
19 these huge, tremendous LNG terminals on the coast,
20 there's going to be a surplus of LNG, because we
21 still don't use natural gas in our homes.

22 We would need a change of an
23 infrastructure of many many years to put in
24 pipelines so we could get the natural gas in our
25 homes.

1 So when you put these plants there,
2 there are already people in Japan, in Europe
3 salivating about the surplus natural gas. And
4 already thinking about putting in heavy industry.
5 Not maquiladoras, not assembly, heavy industry.
6 And that would finish the tourism industry.

7 So, in red you see projects that are
8 still pending, still in litigation. And the
9 Semptra/Shell project, although they are already
10 building the access road and the bridge, the
11 actual project is not under construction yet.
12 There are at least 15 lawsuits pending.

13 There's a lot of issues as far as the
14 financing for that project. And there's a quote
15 from Credit Banc Suisse, I believe, one of the
16 bank managers said that if all these companies,
17 these oil companies, gas companies, try to create
18 and build these projects and think, if I build it
19 they will come, you're crazy, because that's not
20 going to secure your money to build these
21 terminals.

22 Because you need to secure the supply
23 chain. You need to secure that you have your gas.
24 You need to secure that you have the plant, that
25 you have the tankers, that you have the

1 regassification plant. And that you have a
2 pipeline.

3 Unless you secure all that, the people
4 from the finance institutions, IMF, World Bank, et
5 cetera, said, we're not going to give you the
6 money. And that's why Semptra and Shell became a
7 joint venture. Because Semptra lost their gas.
8 And they lost it when they went to Bolivia. And
9 Bolivians said no, not again. We're not going to
10 let anybody decide on our resources.

11 And that's when they started looking for
12 it in other places. And unfortunately this is
13 another part of the puzzle, because the problems
14 are that this isn't Sakhalin Island in Russia,
15 this is where extraction of gas is taking place.
16 And it is very devastating.

17 It's a very rich, wonderful place in the
18 world. And unfortunately most of the places that
19 are very rich in biodiversity are the ones that
20 have these tremendous sources of natural gas.
21 This is tremendous of the station that occurred in
22 Camisea, Peru that had funding, that was under
23 construction, and then the funding disappeared
24 because of the tremendous devastation.

25 And, again, let's ignore the environment

1 for a moment, and the fact here is that indigenous
2 communities are dying. This was a reserve for
3 this indigenous community, the Kugapakori
4 community. And they're dying because they're
5 having these first contacts with humans. They've
6 never had a cold in their lives, and they're
7 dying.

8 So the incredible people from Amazon
9 Watch who are trying to create -- to show people
10 what's going on. You know, we know it's a cleaner
11 fuel; we know natural gas would be a lot better
12 than (indiscernible) in a power plant.

13 But when you just look at the end user,
14 you're not looking at the whole story. There is a
15 whole story behind where the gas is coming from.
16 And this is the story.

17 So corporations involved here, and you
18 can see. And this is a terrible devastation that
19 happened in Camisea, Peru.

20 And there's also devastation occurring
21 in Tangguh, Indonesia. People are also trying to
22 try to -- it's a wonderful fishing community. And
23 I have not been able to acquire or get any
24 photographs because actual people have been
25 killed. And they have been very protective of

1 their identity because they're trying to protect
2 their between Berau Bay in Indonesia.

3 But as I said, Australia's Ark is also,
4 you know, a tremendously unique region. So we
5 have to think about the whole chain. We cannot
6 just think about where are we going to put it; do
7 we need it; is there an energy crisis. Where are
8 we bringing this natural gas from. Where and how
9 are we treating the people where we're bringing
10 this gas from.

11 Because it can be cleaner. We can have
12 cleaner buses. It won't be as contaminating. But
13 what happens to the communities that you're
14 affecting to get to this gas.

15 So, this has already been mentioned.
16 There are still controversies as far as the cases
17 that are still pending, as I said. Nothing's
18 under construction yet in Baja, California. There
19 is opposition. And we have communicated with the
20 government. We have connected with them. We have
21 been able to speak to them.

22 And we're open to see options, better
23 options, better locations, et cetera. Offshore
24 locations would be much better as far as
25 devastation of environments, devastation of

1 habitats and flora and fauna, et cetera.

2 So there are better options, but do we
3 need them, again. This is just a picture of the
4 people in Bolivia when basically they threw out
5 the president in 2003. And this is just to let
6 you know that there's a huge coalition of people
7 around the world surrounding this issue of
8 liquified natural gas.

9 And people are getting educated and
10 trying to share this information and share this
11 knowledge because it's not fair anymore. It's not
12 fair. We're trying to get educated and share this
13 information.

14 And if the poorest country in the world
15 could stop Sempra, I think we could do a lot
16 better. So I'll leave you with this picture. And
17 any other questions? Thank you.

18 MS. ALLEN: The next speaker is Araceli
19 Samaniego.

20 MS. SAMANIEGO: Good afternoon,
21 everybody.

22 PRESIDING MEMBER GEESMAN: Make certain
23 you speak directly into the microphone.

24 MS. SAMANIEGO: My name is Araceli
25 Samaniego, and I'm here representing the Grupo de

1 Ecologia y Conservacion de Islas, (indiscernible).

2 I have a presentation.

3 This is a view of Coronado Islands. I'm
4 going to talk briefly about the negative impacts
5 of the Chevron Texaco project.

6 Islands in general are very important in
7 different aspects. They support really high
8 levels of diversity. They are very productive
9 systems. There are some very good examples of
10 sustainable development in several islands around
11 the world. In many countries islands are also a
12 key element for regarding territory.

13 (inaudible) islands all over the world.
14 But unfortunately at the same time that we see
15 these amazing numbers of endemic and native
16 species living on the islands and breeding of
17 them, or just roosting, we see these data at the
18 same time that we see the dramatic high species
19 extinction rate on islands everywhere.

20 And this is due to islands are impacted
21 frequently by human activities. So most of the
22 extinction have occur in the last centuries have
23 occur on islands. And we are talking about all
24 taxa, invertebrates, plants, native birds and
25 small mammals principally.

1 In Mexico all the islands are federal
2 property, which is an advantage for us. And some
3 of the islands in Mexico have been recognized as
4 very important by university centers. So they are
5 now under legal protection.

6 Is not the case for all of the islands,
7 and is not the case for Coronado Islands and some
8 other Pacific Islands. However, Mexican Congress
9 last year 2003 express officially initiative to
10 create (indiscernible) for reserve in
11 consideration to the high value and ecological
12 importance of these islands.

13 This is a picture showing the general
14 area we are talking about. There are several
15 islands along the coast. And these, the Mexican
16 initiative includes most of these islands on the
17 Pacific side. The islands inside the Gulf of
18 California are already protected.

19 So Coronado has a special location
20 because is located very close to the border. This
21 is a close-up showing Coronado Islands. You can
22 see north, middle and south island, and the
23 location very close to the border.

24 On these three islands we can find a lot
25 of native species. And many of them are endemic

1 to Coronado Island. There are just on these
2 islands, and these are some examples. The little
3 mouse, the deer mice is endemic to Coronado, as
4 well as the (indiscernible) snake. And many other
5 species. These are just some examples.
6 (indiscernible) are not endemic to Coronados, but
7 they breed on these islands and have a very
8 abundant colonies, very important.

9 You can find also several species of
10 marine mammals, as whales. But these three
11 species of pinnipeds, the California seal and the
12 elephant seals and the harbor seals, all these
13 species rest and breed in these islands.

14 One of the principal species we are
15 concerned about is the Xantus Morrelet. And these
16 really nocturnal bird breeds on Coronado Island,
17 and actually this species has the biggest colony
18 of this species breeds on Coronado Island. And
19 there are reference to this scientific that agrees
20 these species are very vulnerable to human
21 activities like lights and pollution, but
22 principally lights.

23 These are just some other example of
24 some more marine species, nocturnal, as well, that
25 will be affected by lights if a power plant is

1 there.

2 We have other endemic plants, also flora
3 species that live just on these islands. Now we
4 have species of bushes and several species of
5 cactuses. And besides the importance of the
6 biological resources on these islands, we have
7 also the productivity, the productive size on the
8 surrounding waters on these islands. You all know
9 that the fisheries are being less productive every
10 time.

11 These data are from the abalone
12 captures. And you can see in the first picture
13 the decreasing of the production of the abalone.
14 And at the same time, because it is reflective of
15 the situation in the coast, the importance of the
16 pollution that come from the islands is more
17 important every time. And is the same for
18 abalone, for lobsters and for many other fishery
19 activities.

20 These are some pictures from the
21 islands. This is a -- and the activities are here
22 on Coronados Islands are in a very very small
23 scale. You can see these are fishermens and the
24 boats they use to fish.

25 These signs are on Coronados, and they

1 speak of restoration efforts that have been made
2 on these islands during the last decade,
3 especially. And they say to people what they were
4 having done there. And they ask people not to
5 bring into these spaces and some more potential
6 impacts to the island.

7 On Coronado there is a small military
8 base. These are the facilities. There's a
9 lighthouse, more native plants. These are the
10 harbor seals. There is a very abundant cormorant
11 colony on Coronados Island. And they breed there.
12 And they are very susceptible to disturbance.

13 These are seagull eggs. This is a group
14 of different kind of -- different species of
15 marine birds. This is a sentinel.

16 I'm talking specially of the Chevron-
17 Texaco project. We review the whole proposal,
18 especially the section of the environmental
19 impacts. And we conclude that this project does
20 not consider the negative environmental impacts.

21 They ignore conservation initiatives,
22 federal conservation initiatives. Does not use
23 the best science and information. Does not
24 mention prevention or mitigation action,
25 especially because they consider no negative

1 impacts.

2 And, of course, lights, pollution,
3 activities and synergic effects mean disruption of
4 island ecosystems natural balance.

5 The LNG terminal, just 600 meters from
6 Coronados Island would cause severe and
7 irreversible environmental damages to both the
8 terrestrial and marine components of the island
9 ecosystem.

10 The activities on and around Coronados
11 Island must be limited by the (indiscernible) in
12 2003. And is not official, but our organization
13 and some more organizations are working together
14 to promote and to move forward with these
15 resolution (indiscernible) around these islands.

16 And Mexican federal (indiscernible)
17 negative resolution because they're having
18 (indiscernible) not consider and they should
19 legally.

20 And besides the (indiscernible) we have
21 some other risks, like (indiscernible) by having
22 these kind of power plants near to these islands.
23 And Semarant, the Mexican environmental agency,
24 turn a positive resolution to Chevron-Texaco,
25 which we ask to be reviewed because we did not

1 consider a different environmental aspect that
2 they should, by law.

3 And as a response Semarant asks this
4 amount of money to us as a warranty to temporary
5 stop the energy development. And the warranty was
6 out of our reach, so we ask for the resolution to
7 be reviewed by the legal, by the next legal -- and
8 it is still under review. We hope they use this
9 time the best science and the best information,
10 all the information our organization provide to
11 them to really evaluate the project, and not just
12 to say go ahead.

13 And, that's it. Special (indiscernible)
14 that have supported all the work put out in this.
15 Thank you.

16 PRESIDING MEMBER GEESMAN: Thank you.

17 MS. ALLEN: The final speaker in this
18 section is Mr. Carl Zichella, the Western Regional
19 Director for the Sierra Club.

20 MR. ZICHELLA: Good afternoon. Thank
21 you for inviting me. I really appreciate the
22 opportunity to be here today, and I appreciate the
23 presentations so far. It's been a very
24 interesting day.

25 Coming at this point of the day many of

1 the things that I will say are things that others
2 have touched upon, so I'm going to try to move
3 quickly through some of those things.

4 But I think points of emphasis here
5 about the Sierra Club -- for the Sierra Club's
6 positions would be, I think, helpful to you.

7 First of all, I'd like to say that our
8 organization, 750,000 members nationwide, is
9 extremely interested and concerned with border
10 issues. Our local chapter here in San Diego has a
11 border committee that's been very involved with
12 border issues and power plant issues and LNG and
13 many other things, as well.

14 We have an international committee and
15 program that have been very engaged also on border
16 issues from Texas to California. We also have a
17 program called Beyond the Borders that provides
18 grants to NGO citizen groups on both sides of the
19 border to facilitate the public involvement that,
20 as you heard Carla talk about, has been so lacking
21 in previous discussions about not just energy, but
22 other environmental matters in Mexico and on the
23 border.

24 We also have an environment and human
25 rights campaign that has worked with Mexican

1 activists who have had their lives threatened for
2 raising environmental questions in Mexico.

3 And I'm very proud of the programs that
4 we have. And the presentation I have for you is
5 mainly about energy issues, but I think will give
6 you a little bit of perspective to complement the
7 things that both Carla and Bill have said.

8 It looks like a few slides are missing.
9 All right, well, this is something I think that's
10 very -- many people have touched upon in the
11 course of the previous discussions about a
12 hierarchy of investments.

13 We talk about things in energy
14 investments to be made on the border, and we talk
15 about long-term contracts and such, and ratepayer-
16 sponsored contracts in order to facilitate LNG,
17 for example.

18 You're obviating an opportunity to do
19 other things that may be cheaper, cleaner, safer
20 and faster. It's a hierarchy that the Energy
21 Commission has looked at, the PUC tries to impose,
22 but I think especially in the post 9/11 world, the
23 safer aspect of all of this takes on an important
24 meaning, as well, both in Mexico and in the United
25 States, especially because some of these

1 technologies, like LNG, provide real opportunities
2 for terror.

3 What we mean when we talk about cleaner
4 are sources that avoid new capacity, lowest
5 emissions, the newest technology and the highest
6 efficiency to replace older technologies. That's
7 very relevant in this community where we heard
8 earlier about how some interests are looking for
9 long-term contracts to keep older polluting
10 facilities in place. Those need to be changed out
11 because the newer plants can be up to twice as
12 efficient.

13 And if we're talking about a need and a
14 demand for things like liquified natural gas, we
15 need to make sure that we do the things that are
16 most logical first before we invest in massive new
17 investments for capacity of sources like natural
18 gas.

19 And, of course, it just does not really
20 even need to be said in this audience about
21 conservation and efficiency investments being the
22 most cost effective and the reasons for that. I
23 think they speak for themselves and did during
24 2001 where we saved more energy in 2001 than we
25 could possibly have created in new power plant

1 construction.

2 Despite the threats that we were going
3 to have thousands of hours of blackouts that
4 summer, we had zero hours of blackouts that
5 summer. And that was the result of one of the
6 greatest energy efficiency programs that this
7 state or the country has ever seen. And the
8 potential there is still very very great despite
9 the strides that the state has made.

10 Talk about sources with no to low
11 emissions, obviously we're talking about
12 renewables and efficiency. The newest technology
13 and highest efficiency to replace older
14 technologies. Just touched upon that just a
15 moment ago, so I'll continue on here.

16 Sources with newest technology and
17 highest efficiency, again just working through
18 this chronology, cheaper investment technology,
19 obviously things that don't have a lot of O&M
20 costs; that don't require a lot of security
21 measures; that don't have hidden costs like terror
22 and other sorts of security measures, those are
23 going to be technologies that we've got to look at
24 first. And we should be moving on first.

25 And, you know, from a border perspective

1 especially, we owe it to our neighbors to be
2 taking these measures first. Because the burden
3 right now, their population is growing. They're
4 going to catch up with our population eventually.
5 But at the moment the burden that we place on them
6 is very great.

7 And we have a responsibility to make
8 sure that we do the most logical things first.
9 and that really argues -- I want to just take a
10 moment to talk about the role of government here,
11 because there's an intense interest in markets and
12 deregulation. And it sort of colors the entire
13 discussion about energy here.

14 But many of these measures don't have
15 the kind of voices to support them. Many of the
16 measures here that we're talking about, especially
17 with efficiency, don't have the kind of political
18 voice, because there aren't the obvious financial
19 beneficiaries.

20 We're not going to see, you know, the
21 kind of million-dollar ad campaigns that was
22 mentioned earlier for LNG being put out there for
23 energy efficiency investments. The only time that
24 was done was when the state did it in 2001. And
25 the result was enormous and evident.

1 So there's a profound role for
2 government here in regulating to the point that we
3 just don't allow large public investments and
4 questionably needed and justified energy sources.
5 Especially when they create turmoil, conflict and
6 unnecessary development across the border, as
7 well.

8 And, again, these are points that others
9 have made. This goes to the kind of reductions
10 that we actually saw in 2001 because of the
11 efficiency program in California.

12 This is one slide that I'd like to
13 include because this is an example of how
14 vulnerable some of these systems can be to terror.
15 This was actually not a terrorist, this was a
16 drunk guy in an ATV with a rifle on the Alaska
17 pipeline. And about 280,000 gallons of oil were
18 spilled as a result of this person's action.

19 And I think when we talk about LNG
20 tankers coming into ports in California and
21 Mexico, we need to be acutely aware that there's a
22 great terror concern about those vessels. They
23 closed the harbor, Boston Harbor, to them during
24 the Democratic National Convention because of that
25 concern. And it's certainly a fear when some of

1 these facilities are being put, as Carla
2 mentioned, near population centers in Long Beach
3 and in Mexico where an accident could affect
4 hundreds of thousands of people. One man, one
5 gun, 280,000 gallons of oil.

6 I'm not going to go through this whole
7 thing because I believe it's probably redundant to
8 a lot of what's already been said. But I'd just
9 conclude with saying we need to follow this
10 hierarchy of investment strategies that I think
11 everyone agrees should be done. But that's going
12 to take some guidance by this body, by the
13 California Public Utilities Commission, and by the
14 state, so that the state government -- and I don't
15 want to rely on the federal government here
16 because I believe their energy proposals are
17 actually injurious to California.

18 This is a listing of things that you
19 won't find in the federal energy bill, for
20 example; or that you'll only find only tokenly
21 mentioned in the energy bill.

22 And there's my contact information for
23 those who would like it.

24 I think the leadership is going to have
25 to come from the Energy Commission and other state

1 bodies to make a rational program happen that's
2 beneficial on both sides of the border. As Carla
3 also mentioned is we may wind up finding that we
4 do need LNG. But we ought to do the things that
5 we need to do first to minimize our need for it,
6 that helps us get to an energy future, that helps
7 us take advantage of the vast potential, and I
8 mean vast, that renewables can provide to this
9 state, including energy efficiency.

10 Yesterday I was at the Governor's Solar
11 Summit in Sacramento and they were talking about
12 tens of thousands of megawatts of capacity that
13 could be realized within a period of decades. And
14 it seems to me when you have that level of
15 capacity and a lot of your natural gas is being
16 used to drive electrical generation that it's
17 foolhardy to be jumping in on something, long-term
18 contracts and ratepayer contracts are going to be
19 needed to prop up in order for even to make it.

20 So I'll leave with that thought, to take
21 the sensible course. Do the things that are more
22 logical to do first. And then let's get on with
23 things we absolutely have to do in the most
24 sensible way possible.

25 PRESIDING MEMBER GEESMAN: Thank you.

1 MS. ALLEN: Our next group of speakers has
2 a somewhat different format. I've asked four
3 speakers from the air quality sector to talk
4 informally about their perspective on the border.

5 Those speakers are Gabe Ruiz from the
6 California Air Resources Board. He's the Air
7 Resources Board's Border Coordinator. Brad
8 Poiriez from the Imperial County Air Pollution
9 Control District. Robert Reider from the San
10 Diego Air Pollution Control District. And
11 Francisco Dóñez from USEPA Region Nine's Air
12 Division.

13 And I've asked if they could just sit
14 there where their names are set out. What we have
15 in mind is about five to ten minutes of informal
16 remarks from each of them. I understand that Mr.
17 Ruiz also has a PowerPoint presentation. If you'd
18 like to go through that when the five to ten
19 minutes of informal remarks are done, that'd be
20 fine.

21 MR. POIRIEZ: I'll go ahead and start.
22 Thanks for inviting Imperial County over. I could
23 go through and basically reiterate some of what my
24 colleagues have said earlier, but in the interests
25 of time I'll just kind of be brief and to the

1 point of what Imperial County APCD is concerned
2 with and my board of directors.

3 First and foremost is the fact that it
4 seems that these power plants are popping up in
5 our backyard at an increasing rate which has been
6 talked about by basically everyone that's come to
7 the podium here.

8 And our concern is that we never had the
9 opportunity in the beginning to comment on these
10 projects. Basically for those of you that aren't
11 familiar with the Mexicali and Imperial County,
12 Calexico, it's just over the hill to the east
13 here. And Mexicali, where these power plants were
14 built and are operating is about three miles, as
15 the crow flies, to Calexico, California.

16 And like --

17 PRESIDING MEMBER GEESMAN: You're
18 talking about the two --

19 MR. POIRIEZ: That would be the Semptra
20 facility and the EnerGen facilities.

21 PRESIDING MEMBER GEESMAN: Okay.

22 MR. POIRIEZ: The newest ones that are
23 operating down in Mexicali.

24 PRESIDING MEMBER GEESMAN: Right.

25 MR. POIRIEZ: As Mr. Powers has

1 presented to you, with the activism in the local
2 community, as well as San Diego, Imperial County
3 and Mexicali, we were able to shed some light on
4 the fact that large corporate America was coming
5 into some certain backyards and just throwing up
6 these power plants without actually taking into
7 account the detrimental environmental impacts they
8 could and probably will have.

9 Some of the other things that concern
10 the APCD associated with power plants is their
11 water use, which Mr. Powers can probably give you
12 a dissertation on. But for those of you not
13 familiar there's one inlet to the Salton Sea, and
14 that's actually -- one main inlet, and that's the
15 New River. The two power plants are using some of
16 the water flow that typically goes into that New
17 River mouth and reducing the flow.

18 We are concerned that that, along with
19 the mentioned earlier, the water transfer, San
20 Diego Metropolitan Water District Colorado River
21 transfer, is going to diminish the inflows into
22 the Salton Sea, thereby shrinking the sea which
23 could entail and probably will entail something to
24 the amount of a diminished Owens Lake area if
25 something isn't done. So that's a very big

1 concern of ours.

2 The EPA recently reclassified Imperial
3 County as a serious nonattainment area for PM10.
4 So the local district is in the early stages of
5 going through a planning effort in which we'll
6 have to implement best available control measures
7 on our local sources.

8 Now that's a big issue to some of our
9 industry such as Mr. Signorotti, who operates at
10 CalEnergy. He's going to be -- his facilities and
11 future facilities are going to be required to meet
12 BACT control measures for PM10, where in the past
13 they were only having to meet RACM measures,
14 reasonable available control measures. And that
15 means dollars. So you can see the concern there
16 that our industry has.

17 The APCD is also concerned that these
18 power plants are able to go in, and emissions that
19 don't know any borders, any geographical borders,
20 are coming in and will diminish what we have
21 accomplished over the last 20 years in terms of
22 NOx emission reductions.

23 So, in a nutshell, I know this is a
24 policy scoping session, I hope somewhere as you
25 move forward with these meetings and come out with

1 your report, there's some kind of mechanism in
2 there by which there's some weighted options on
3 whether these facilities can be sited, and if
4 they're going to use best available control
5 measures.

6 And that's kind of in a nutshell, real
7 quick and dirty, and I'll leave way to my state
8 oversight agency here.

9 PRESIDING MEMBER GEESMAN: Before you go
10 on, do you have monitoring data from both sides of
11 the border?

12 MR. POIRIEZ: Yes, we do. And that's
13 going to be part of Mr. Ruiz' presentation, I
14 believe.

15 MR. RUIZ: Actually, yes. That is my
16 presentation. And if it's okay with Rob and
17 Francisco, I would like to just go on with it. It
18 provides a backdrop for the rest of our
19 discussion.

20 I want to start by thanking the Energy
21 Commission for inviting us to this workshop today.
22 I was asked to provide an update on the air
23 quality in the California/Mexico border region.

24 And as we already heard from several of
25 the presenters this morning, this is a very

1 dynamic area. It's growing very fast,
2 particularly on the Mexican side. And that has
3 brought with it a number of environmental
4 pressures, one of them is air quality.

5 From an air quality perspective we can
6 see two very distinct regions. One of them is the
7 Tijuana/Tecate/Rosarito airshed; and another one
8 is the Mexicali/Imperial Valley area.

9 Air monitoring in California, or at
10 least in the San Diego area, goes back about at
11 least 30 years. And in Imperial County we have
12 been monitoring air quality for about 20. It was
13 not until 1996 that we started doing some
14 monitoring in Mexico, in Tijuana and Rosarito
15 particularly. And in 1997 we expanded that
16 program.

17 All of this has been done in
18 collaboration with USEPA and Mexican federal
19 agency, Semarant.

20 And this slide gives you some idea about
21 the coverage in each of these regions. We can see
22 that San Diego has, by far, the largest number of
23 monitors, followed by Imperial County. But we
24 have a good enough monitoring network in Mexicali,
25 Tijuana and the rest of the northern Baja,

1 California cities.

2 This slide presents air quality
3 assessment at a glance. What you can see is that
4 San Diego is in attainment of most of the U.S. air
5 quality standards. And here I want to just
6 clarify that in order to do a comparison that was
7 somewhat more accurate, I used air quality
8 standards adopted by USEPA. Mexico has adopted
9 their own air quality standards. And also
10 California has adopted more stringent air quality
11 standards.

12 But from this slide we can see that the
13 standards are pretty much the same, are very very
14 close. So when we're talking about an exceedance
15 of the U.S. standard, in many cases we're also
16 talking about an exceedance of the Mexican
17 standard.

18 So, what other trends, what have we seen
19 happening with respect to these major pollutants
20 in the area since we started monitoring in both
21 sides of the border, is that San Diego has
22 attained the air quality standards for ozone in
23 2001. And we have not seen an exceedance of these
24 pollutant in Tijuana since 1997.

25 That doesn't necessarily mean that the

1 area is cleaner. It probably means that we don't
2 have enough monitors there yet. That's something
3 that we will evaluate.

4 PRESIDING MEMBER GEESMAN: Do you know
5 enough about the weather there to weather-adjust
6 this data?

7 MR. RUIZ: We have done some studies on
8 transfer. There's some weather conditions which
9 lead to transfer from Mexico into -- or from
10 Tijuana into San Diego, but it's very rare. In
11 most instances the air tends to blow pollution
12 inland away from the coast.

13 PRESIDING MEMBER GEESMAN: Is there
14 transport from San Diego into Tijuana?

15 MR. RUIZ: We have done that evaluation.
16 We believe that there's some. Not enough to cause
17 any problems in Tijuana. In other words, there's
18 enough sources in Tijuana alone to cause any
19 exceedances.

20 The other thing that we have seen with
21 respect to ozone is that we have seen a number --
22 a decrease in the number of exceedances both in
23 Imperial County and Mexicali. In the next slide
24 we actually have the number of exceedances
25 recorded per year.

1 What we can see from this chart is that
2 there's general downward trend. But we can also
3 see the number of exceedances are much higher, or
4 tend to be much higher in Mexicali and Imperial
5 County area. I also want to point out that for
6 this particular analysis, I could not get the
7 complete data set for 2000 through 2002. So
8 chances are that those numbers might increase by a
9 couple of exceedances. So this is something that
10 I will need to go back and review once I have
11 access to the complete data set.

12 San Diego has not exceeded the carbon
13 monoxide standard since 1990. Tijuana has had an
14 average of about one per year since we started
15 monitoring. However, we didn't see one in 2003,
16 so I don't know if that's the beginning of a trend
17 or not. It's too early to say.

18 And we have also seen a decline in the
19 number of exceedances in Mexicali and Calexico.
20 However, the numbers of exceedances in Mexicali is
21 still way above anything that we have seen
22 anywhere else in the state. Up until 2002
23 Calexico was the one of only two areas in the
24 state that still exceeded the national air quality
25 standard for CO. It seems that they are about to

1 going into attainment, but Mexicali is still
2 recording way over 30 exceedances per year.

3 PRESIDING MEMBER GEESMAN: What do you
4 attribute that to?

5 MR. RUIZ: We attribute that to the
6 introduction of unleaded gasoline in Mexico in the
7 mid 1990s. And also to the rotation or
8 introduction of newer vehicles. As the older
9 vehicles age, they're being replaced by newer
10 vehicles that have more efficient emission
11 controls.

12 COMMISSIONER BOYD: Gabe, that's the
13 decline, but the numbers, as you say, are still
14 pretty high. Do you have any vehicle miles
15 traveled, VMT, data in Mexicali? And are these
16 basically non-U.S. vehicles, that is vehicles that
17 meet whatever emission standards there are in
18 Mexico? And I'm not familiar with that any
19 longer.

20 MR. RUIZ: Okay. Actually the excessive
21 number of exceedances, the high number, or the
22 high CO concentrations in Mexicali and in other
23 Mexican cities is attributed to the vehicle fleet.
24 In the case of Tijuana and Mexicali they're
25 actually older California vehicles.

1 The problem is they have some
2 restrictions on the age. Cars have to be a
3 certain model or older in order to be imported.
4 And then once they get across the border, there's
5 no requirements for smog checks.

6 So as the emissions systems start to
7 break down or deteriorate, there's no incentive or
8 there's no regulation that requires drivers to
9 maintain those vehicles. And basically that's
10 what we end up seeing.

11 Some of the studies that we have done in
12 the past show that the vehicle fleet in Mexicali
13 and Tijuana tends to be about on average about
14 seven years older than California fleets.

15 For PM10 we have not really seen much
16 improvement. San Diego has been in attainment
17 since 1993. And there hasn't been any change.
18 There was one exceedance recorded back in October
19 of 2003. But it was due to the wildfires in the
20 southern California area. And actually most of
21 the area in southern California exceeded around
22 those dates.

23 Tijuana reaches about three exceedances
24 per year. These are three major exceedances. We
25 only sample once every six days. So actually each

1 exceedance translates roughly to about six
2 potential exceedances during the year.

3 Calexico reaches about four exceedances.
4 And it is the highest, or it's the city that has
5 the highest number of exceedances in Imperial
6 County. Out of every five exceedances of PM10
7 standards, four are recorded in Calexico roughly.

8 And Mexicali, by far, surpasses
9 Calexico. Where the average number of measured
10 exceedances was more than 30 per year over the
11 last seven years. And, again, this chart shows
12 you the magnitude of the PM10 problem. These are
13 major exceedances.

14 COMMISSIONER BOYD: What do you
15 attribute the high PM10 levels to?

16 MR. RUIZ: Mostly on paved streets,
17 there's a lot of traffic on paved roads. Also, I
18 guess, it's the standards to which -- well, it's
19 the codes for paving.

20 In California most roads are required to
21 have a shoulder and gutters. On the Mexicali side
22 when it rains, or actually there's track out from
23 the unpaved streets onto paved streets, but
24 there's no mechanism to set all that dust aside.
25 So just traffic in general tends to pick it up all

1 over again and re-entrain it.

2 We did see a peak in 2000, which I
3 attribute to construction of a major road just
4 outside of Mexicali that was probably impacting
5 this particular monitoring station.

6 COMMISSIONER BOYD: Brad, is there still
7 much ag burning in Imperial County?

8 MR. POIRIEZ: Actually our ag burning
9 results in less than 2 percent of our PM10
10 inventory in Imperial County. There still is,
11 it's a historical practice, the amount of acreage
12 has been reduced over the years. That could be
13 attributed to either changes in the market, the
14 crops being grown.

15 The Air District implements an incentive
16 program by which we offer emission reduction
17 credits to those farms that apply for -- submit an
18 application for the reduction. They can show
19 historically they burned that acreage. For
20 example, a 70-acre wheat crop historically has
21 been burned. This year they will disc it under.
22 Hence whatever would have been emitted from that
23 70-acre block would be given an emission reduction
24 credit. And those are in terms of PM10, total
25 organic compounds and CO.

1 Those have a limited term life on them.
2 They depreciate over a four-year period until they
3 are zeroed out if they're not used. That's one
4 mechanism.

5 And also a couple years ago we raised
6 our burn fees, so that was a deterrent, also.

7 MR. RUIZ: We also monitor for toxic air
8 contaminants. We have one station in Rosarito,
9 one station in Mexicali. We have 18 stations
10 throughout the state on the California side. And
11 all the sites sample, or they collect a 24-hour
12 sample once every 12 days.

13 What we have seen is that toxic levels
14 in San Diego and Rosarito are very close to the
15 statewide average. So toxics, in general, don't
16 represent a serious threat to this particular
17 airshed.

18 But we have seen some of the highest
19 concentrations of benzene, 3-butadiene,
20 acetylaldehyde and formaldehyde in the state.
21 They were recorded in Calexico. And Calexico is a
22 city of only 27,000 people.

23 What's even more disturbing is that
24 Mexicali has by far, or has far higher levels of
25 air toxics than anything we have seen in the

1 state.

2 And this is a chart showing the average
3 concentrations for benzene from 1998 through 2002.
4 And these average values more than twice what we
5 see in Calexico, and Calexico is typically past
6 the first, second or third rank in our statewide
7 emissions.

8 And again we saw emissions that come
9 primarily from aromatic sources, mobile sources,
10 burned gasoline. So it kind of ties back to lack
11 of an effective smog check program.

12 PRESIDING MEMBER GEESMAN: What about
13 fuel content, as well? I presume that Mexican
14 gasoline is significantly different from
15 California?

16 MR. RUIZ: There is some anecdotal
17 evidence that sometimes a lot of the gasoline used
18 on the Baja side is actually California fuel. We
19 have done some tests and we have verified that.

20 On the other hand, Mexican standards for
21 fuel at slightly different. In particular with
22 respect to benzene. So that could account for
23 some of the difference. But the difference,
24 though, is not twice as much. I mean we might be
25 talking about 10 percent differential.

1 PRESIDING MEMBER GEESMAN: Okay.

2 MR. RUIZ: Again, this is another toxic
3 pollutant that is mostly emitted by mobile
4 sources, 1,3-butadiene. And again we see that
5 concentrations in Mexicali are about three times
6 as high as anything that we see in Calexico.

7 And the other thing that is very
8 significant about these compounds is that they
9 represent the highest, or the most serious risk to
10 public health as far as toxic air contaminants go.

11 So far what our emissions inventory
12 tells about these emissions is that more vehicles
13 are the primary sources of ozone precursors, CO
14 and toxics. But also stationary sources
15 contribute to ozone precursors and some toxics.
16 And unpaved roads and wind-blown emissions from
17 unpaved roads, (indiscernible) roads, they are the
18 primary contributors to particulate pollution.

19 So just in conclusion or to summarize,
20 we have seen that the San Diego/Tijuana airshed is
21 close to attaining most of the standards. San
22 Diego has done a lot of work on that, and I'm sure
23 that Rob might be able to tell us more about that.

24 Tijuana has actually kind of benefitted
25 from a couple of things. One of them is location,

1 very close to the ocean, which tends to blow
2 pollution away. And then, as I mentioned,
3 bringing in newer vehicles, as they are replaced
4 in California and taken to Mexico. They tend to
5 be cleaner than whatever they are replacing, the
6 turnover effect.

7 But Imperial County, even though we have
8 seen some improvements in ozone and CO, Mexicali
9 still has a very high number of CO exceedances.
10 Has a very high number of PM10 exceedances. Has a
11 very high levels of toxic air contaminants, as
12 evidence by the charts for Mexicali and Calexico.
13 We see that there's a spillover effect, whatever
14 happens in Mexicali affects Calexico and some
15 other parts of Imperial County.

16 That concludes my presentation.

17 PRESIDING MEMBER GEESMAN: Are there
18 inventories available for either of the Mexican
19 airsheds?

20 MR. RUIZ: Yes. The USEPA has sponsored
21 a project. They're doing an inventory of the
22 entire country. And right now they have the
23 border states inventory available.

24 And back in 1997 -- well, 1999, there
25 were inventories done for cities, Tijuana and

1 Mexicali.

2 MR. D YEZ: Thank you for the
3 opportunity to come and speak. USEPA's
4 involvement in border energy issues, especially
5 the particular ones on the Mexican side of the
6 border that we've heard about most today, of
7 course, our regulatory role is not exercised for
8 those projects, not being within our geographical
9 jurisdiction. But we certainly make ourselves
10 available and try to be active as an information
11 resource and as a highly interested commentator on
12 all these issues.

13 EPA also provides, of course, support
14 for some efforts such as the WGA energy efficiency
15 initiatives that we heard about. And the Mexican
16 inventory that Gabe just mentioned.

17 So I'd just like to make -- I'm not
18 going to try to add factual information to the
19 very rich information you've already heard. But I
20 do want to emphasize, make some -- to emphasize
21 some points of concern that EPA would like to have
22 known that are nothing new, certainly.

23 I'd like to re-emphasize points made by
24 Ms. Zendejas and by Brad and others, that
25 meaningful public participation is crucial for all

1 of these projects. And in this entire issue of
2 energy projects, especially at the border.

3 EPA has certainly applauded the DOE
4 environmental impact study that was done for the
5 transmission lines across the border. We spent a
6 lot of time and effort sending comments to that,
7 which I'll (inaudible) in a moment.

8 But more generally we certainly ask
9 that, you know, for any project, well, no matter
10 what the specific regulatory requirement is on
11 either side of the border, that a meaningful
12 public process be engaged in order to get a good
13 picture of the impacts on both sides of the border
14 on the environment.

15 During the public comment process on the
16 cross-border transmission lines DOE did undertake
17 an environmental impact study, and EPA did
18 comment. I'd just like to shine light on one of
19 the comments that we made, which was that we felt
20 that on the ozone impacts, and this I'll expand
21 into a general comment as well, that the
22 uncertainties really need to be emphasized in all
23 of the modeling that is done on environmental
24 impacts. In this particular case some conclusions
25 were noted as far as ozone impacts based on NOx,

1 nitrogen oxide emissions from the power plants,
2 themselves.

3 And extrapolating using modeling to the
4 conclusion that ozone levels at certain distances
5 from the plant might be lower than expected. This
6 conclusion is fraught with uncertainties that
7 weren't mentioned in the initial draft that we
8 looked at. And we asked that those uncertainties
9 be explicitly emphasized. And the fact that if
10 those conclusions are inaccurate, then impacts
11 could be considerably greater than predicted.

12 I think this is something -- and this
13 is, of course, also a general conclusion, that
14 modeling, especially in cases like ozone impacts
15 from a point source in a highly urbanized area,
16 highly polluted area, it's very difficult to
17 predict impacts from a single source.

18 So we would very much like in general
19 for project developers and governments and
20 evaluators to emphasize the uncertainties in this
21 kind of exercise.

22 We also recommended that DOE and the
23 project sponsors commit to developing mitigation
24 projects for the pollutants that would be emitted
25 from these plants. This is not a requirement that

1 they have to perform under Mexican law as they
2 might under U.S. law where offsets are required.

3 Nevertheless, we recommend that in order
4 to mitigate against any possible environmental
5 impacts that might not come out because of the
6 uncertainties in the modeling process, that DOE
7 and the project developers undertake some type of
8 mitigation efforts.

9 We're also, of course, keeping a close
10 eye on LNG development efforts in Baja,
11 California. But have not undertaken any formal
12 efforts on that issue at this time.

13 PRESIDING MEMBER GEESMAN: As it relates
14 to mitigation, how would you deal with the
15 locational aspect of particular mitigation
16 measures? I mean would you characterize
17 mitigation on one side of the border as the
18 equivalent of mitigation on the other?

19 MR. D YEZ: That's a possibility. It
20 would depend probably on the specific effort that
21 was undertaken, and what pollutant was being
22 attempted to mitigate, what impact we thought, as
23 a technical agency what impact we thought that
24 might have on the area as a whole, or the specific
25 area that was being targeted.

1 PRESIDING MEMBER GEESMAN: So would you
2 look at the area as a whole, or just the U.S.
3 side?

4 MR. D YEZ: EPA, of course, would be
5 most concerned with the U.S. side.

6 PRESIDING MEMBER GEESMAN: And does that
7 mean you'd only look at the U.S. side?

8 (Laughter.)

9 MR. POIRIEZ: If I could put the local
10 air district --

11 MR. D YEZ: We're restricted to look at
12 the U.S. side unfortunately. We'd look for any
13 assistance we could on the Mexican side, as well.

14 PRESIDING MEMBER GEESMAN: So, your
15 evaluation of mitigation on the Mexican side would
16 be as it related to a discernible effect on the
17 U.S. side?

18 MR. D YEZ: Most probably, yes.

19 PRESIDING MEMBER GEESMAN: Okay.

20 MS. ALLEN: Excuse me, Francisco.
21 Perhaps this would be, in terms of mitigation on
22 both sides, perhaps this would be a good time to
23 talk briefly about what's happening with border
24 2012. Perhaps that's an opportunity to talk more
25 about long-term mitigation options on both sides

1 of the border?

2 MR. D YEZ: This would be.

3 Unfortunately I'm not the most appropriate person
4 to talk about the border 2012 efforts. Rob and
5 Brad probably have more information on those
6 specific projects than I do.

7 One thing that we have been working on
8 with Imperial County is trying to support them in
9 their efforts to look into the issue of cross-
10 border emission reduction credits, which are
11 potential sources, both in Imperial/Mexicali and
12 in other regions, such as El Paso, Juarez for
13 mitigation projects that might allow energy and
14 other developments to happen that might not happen
15 under U.S. rules, otherwise.

16 Unfortunately, as Brad also knows, that
17 the Clean Air Act in its present form does not
18 provide a mechanism for recognizing mitigation
19 credits from across -- that are not within U.S.
20 boundaries. So they're putting the finishing
21 touches on a document now, outlining some of the
22 issues and some of the hurdles that will have to
23 be overcome to make such an effort possible.

24 MR. POIRIEZ: And I think several people
25 in this room realize that, for instance, Mr.

1 Sweedler, a lot of his presentation refers to it
2 as an airshed, a common airshed.

3 In order for us to move forward on a
4 project or nature such as this, there's going to
5 have to be that recognition in the Clean Air Act
6 as a common airshed, not air basin, which is
7 defined right now.

8 According to the Congressman Filner, he
9 has embarked on what's called a Fair Air Act,
10 which will start looking at this issue. He's
11 working very closely with the Air District. And I
12 don't know if he's contacted San Diego regarding
13 it, but that is the biggest hurdle is what
14 Francisco just told you, is that sovereign issue.
15 And not being able to have that common airshed
16 designation with which to move forward.

17 And then there's the enforceability
18 issues which, you know, is also a large hurdle,
19 making sure the emission reductions are
20 quantifiable enforceable.

21 He is correct that we're finishing that
22 pilot study. And that's exactly what it's going
23 to say, is until the Clean Air Act can be amended,
24 nothing further can be done in terms of the local
25 jurisdiction, state or federal, to that matter.

1 DR. SWEEDLER: Mr. Chairman, may I make
2 a comment, please.

3 PRESIDING MEMBER GEESMAN: Certainly.

4 DR. SWEEDLER: This issue has been
5 discussed in this region for many years. And I
6 think in the Imperial/Mexicali region the science
7 is so obvious that there's contamination cross-
8 border. San Diego/Tijuana, there's a lot of
9 debate about it. But certainly in the valley, and
10 also in the (indiscernible), Juarez/El Paso
11 region.

12 And it certainly wouldn't hurt if this
13 was recognized by the State of California, either
14 through this report that you're working on,
15 through the ARB or some other mechanism, to
16 provide at least a rationale for a modification to
17 the Clean Air Act.

18 Also, I think it's worthwhile to look
19 into what California, itself, can do, even outside
20 of the Clean Air Act. Because these violations
21 that are taking place in Imperial County, which is
22 part of California, are clearly in violation of
23 the state standards, dramatically so.

24 And the fact is they'll never be able to
25 go into compliance unless something is done in

1 Mexicali. That's just a reality on the ground.
2 And somehow that should be taken into account
3 somewhere, by some state entity.

4 PRESIDING MEMBER GEESMAN: I think those
5 are good points.

6 MS. ALLEN: Mr. Reider, you have been
7 very patient. Thank you.

8 MR. REIDER: Sure. I have a few
9 remarks, but first regarding the binational
10 airshed basin, as has been mentioned it's kind of
11 geographic-specific. In the San Diego/Tijuana
12 area our data show that the wind trends are mainly
13 east/west. There's not a predominance of a
14 north/south, south/north wind flow.

15 So for our particular region the Air
16 District to date has not been supportive of a
17 binational airshed from a regulatory perspective.
18 We're just not seeing that there would be health
19 benefit in reducing emissions in Tijuana would not
20 necessarily help San Diego and vice versa.

21 Now, that's in vacuum somewhat. Of
22 course, in reality there is air exchange. So,
23 there could be some benefit along the localized
24 area of the border. But in general it's much
25 different for us than it is for Imperial and

1 Mexicali.

2 PRESIDING MEMBER GEESMAN: Do the Mexico
3 authorities at Tijuana agree with that assessment?

4 MR. REIDER: Well, we have made that
5 case to them and in their company with Semarant
6 and Ecologia, the state agency. If they disagreed
7 they did not let me know that.

8 PRESIDING MEMBER GEESMAN: Okay.

9 UNIDENTIFIED SPEAKER: (indiscernible),
10 again. At the Border Energy Issues Group, of
11 which Jim and I are a member, they don't quite
12 take that view, I'm sorry, Rob. The Semarant
13 representative has presented the committee with
14 very specific wind data which shows that there is
15 exchange.

16 So, what it suggests is that more
17 research needs to be done. There is an area that
18 there is not consensus on.

19 MR. REIDER: I can tell you that San
20 Diego doesn't feel it's significantly impacted by
21 Tijuana. If Tijuana feels they're significantly
22 impacted by San Diego, they've not said that to my
23 agency to my knowledge. But we don't participate
24 in this group, and perhaps apparently we should,
25 to hear what data they have. So, continuing

1 discussion.

2 But regarding the trends, Gabe had a
3 compelling presentation regarding the status of
4 air quality in San Diego. And it's come through
5 blood, sweat and tears. It's not magic that we're
6 currently meeting most of the standards. If we
7 had done this presentation 20 years ago, you would
8 see skyscrapers in all the bar charts for San
9 Diego where we exceeded on 90 days a year in the
10 late '70s the ozone standards.

11 So it's been through a robust regulatory
12 structure that we've basically, between EPA, ARB
13 and the District, left no stone unturned looking
14 for emission reductions.

15 The power plants, themselves, are famous
16 for -- at one point they used to be basically the
17 largest single source of stationary NOx emissions
18 in San Diego County. Now their nameplate says
19 instead they're the largest single reduction of
20 NOx emissions in San Diego County.

21 PRESIDING MEMBER GEESMAN: Is that the
22 fuel switch from oil to gas?

23 MR. REIDER: The switch, it's the
24 advanced emission controls. All nine large
25 utility boilers in San Diego County are very well

1 controlled. And emission levels today are about
2 2500 tons a year less than they were in the mid
3 '90s. And so they've clearly stepped up to the
4 plate to reduce their emissions.

5 The new power plants, for example the
6 Otay Mesa Power Plant that's been talked about,
7 which has not yet built, would have even more
8 advanced emission controls. And its residual
9 emissions, what's left after all those controls,
10 would be offset by emission reduction projects.

11 So, clearly it's a very aggressive
12 program that exists virtually throughout
13 California. But, of course, we don't have
14 jurisdiction, and I think appropriately so, our
15 jurisdiction stops at the border, Mexico being a
16 sovereign nation.

17 San Diego has been lucky in that we have
18 not seen what Imperial has. We're not seeing the
19 pop up of the power plants just in our backyard.
20 I'm glad for that. My perspective would probably
21 change a lot. I've been through, you know,
22 watched Brad go through a lot the last few years
23 in dealing with that.

24 But one thing that I'm realizing is the
25 argument that Mexico needs to do it because we're

1 doing it, it's not working. In everything I've
2 seen in response to comments from federal
3 agencies, state agencies, that these power plants
4 need emission controls because look what would
5 happen if you did these in California. The answer
6 is always, well, your regulations don't apply
7 here. And that's true. It's such an obvious
8 answer.

9 So we can all comment that we need to
10 have more controls, but because there's not that
11 regulatory structure, it'll just fall flat.

12 And so my suggestion, just from personal
13 observation, is I think the health benefits of the
14 regulations are what really need to be realized
15 more in Mexico. The fact that what I've heard EPA
16 say is for every dollar invested in diesel
17 emission controls you get \$13 health benefit.

18 And I don't know if that's true or not,
19 but clearly there is a lot of health impact from
20 toxic air contaminants. And by spending money on
21 emission controls you're saving lives, saving
22 money. And so I think those arguments will work
23 better than you should do it because we're doing
24 it.

25 And regarding border 2012, there is an

1 ongoing effort now through EPA to educate folks on
2 both sides of the border. We have quarterly
3 meetings chaired by Bill Powers here in San Diego.
4 And I believe Kimberly Collins, perhaps -- are you
5 the chair for the Imperial Valley Group? But
6 anyway, they're represented here today.

7 We have frequent meetings on the border
8 region to share information about the health
9 impacts, about air quality programs in San Diego
10 and Imperial County, and education is starting.

11 And so that's just what I wanted to
12 share with you, is that I'm not surprised when I
13 see the question raised, well, that regulation
14 doesn't apply here. We'll always get that answer
15 unless the people start getting more educated,
16 themselves, about the benefits. And they can push
17 their own government to establish the regulations.

18 So, that's my two cents.

19 PRESIDING MEMBER GEESMAN: Thank you.

20 MR. POIRIEZ: If I could have one more
21 point that I would like to see that's included in
22 your energy policy, it's the availability of
23 emission reduction credits.

24 Any new power plant that's going to go
25 in in California over 50 megawatts, you're going

1 to be the permitting authority on that, the
2 California Energy Commission.

3 Generally those power plants are going
4 to be required to have some sort of offset,
5 depending on where they're located. And right now
6 in Imperial County I can tell you there's only one
7 significant holder of NOx emission reduction
8 credits, and they're actually in this room today.

9 If there was any kind of explosion of
10 development of power plants in Imperial County
11 there wouldn't be the availability of that
12 emission reduction credit offset.

13 So that should be something that is
14 addressed in a report when you're looking at power
15 plant location. And, you know, you hear several
16 of the people in here talking about, you know, San
17 Diego is going to be decommissioning a couple of
18 power plants. Hopefully these two new ones are
19 going to come online. But there's need for more.
20 Where are the offsets going to come from?

21 COMMISSIONER BOYD: Well, I think that
22 problem has been recognized ever since the
23 electricity crisis. You're right; that's a good
24 point statewide.

25 I would say don't -- I wouldn't expect

1 any explosion of power plants in Imperial County,
2 so you don't have to stay awake nights worrying
3 about finding the credits.

4 MR. POIRIEZ: I wouldn't stay awake --

5 COMMISSIONER BOYD: But, --

6 PRESIDING MEMBER GEESMAN: They may be
7 in those low NOx geothermal projects.

8 COMMISSIONER BOYD: Right. We're
9 looking for different kind of power development in
10 your neck of the woods.

11 I would say, though, the one thing that
12 this discussion this afternoon drives home, and
13 your last -- I mean the gentleman from San Diego's
14 comments about 2012 and maybe needing to
15 participate in the Border Energy Issues Group,
16 just drives home a point that's been well made to
17 me down through the years, is that energy and air
18 quality travel hand-in-hand, or hand-in-glove and
19 what-have-you. So you cannot separate them. And
20 so you're right, there does need to be dialogue.

21 And I think that the border 2012 effort
22 and the Border Energy Issues Group do need to be
23 plugged in more than they are. Alan's right, it's
24 on the agenda of the Border Energy Issues Group,
25 this binational emissions trading thing has been

1 there. And it's expected to take a long time to
2 educate people to be able to push that subject
3 forward.

4 It likewise is one of the program
5 objectives of the energy worktable of the border
6 Governors group as it applies to entire ten-state
7 border area. And, once again, it's expected to be
8 a long haul to get to that point.

9 And one of the very reasons is the very
10 point that's been made about, you know, what
11 applies in California stops at the border. And
12 people in nations trying to improve their standard
13 of living and their economy are not really wide
14 open to instantly implementing whatever their
15 next-door-neighbors have necessarily implemented,
16 when that next-door-neighbor has a better economy
17 and a better standard of living.

18 So, it's going to be a long haul to have
19 a borderless region that can deal with the
20 subject. But I noticed when I came back from
21 lunch a booklet sitting at my place here on the
22 very subject of binational emission reduction
23 credit trading. And it's something that I
24 recognize because it's been talked about in the
25 Border Energy Issue Group for awhile. And I

1 presume it needs to be continued to be talked
2 about for some time.

3 I'm sure that John and I are more
4 sensitized to this issue. And I'm sure something
5 will be written up in the Integrated Energy Policy
6 Report. But it's going to take a lot of other
7 agencies, many of whom are represented in the room
8 here today, to also recognize the issue and write
9 it up and plug it all in together before we can
10 move that issue forward.

11 And I'm sure pollution goes both ways
12 across the border. When the air pollution control
13 officer of Imperial County, in the early 1990s
14 took me on a two-day tour of Imperial County and
15 Calexico and Mexicali, I had to leave the streets
16 of Mexicali after about an hour because the
17 solvents and chemical smell was so strong that I
18 was tearing, weeping and could hardly breathe.

19 So when you start talking about people's
20 public health and you start worrying about the
21 health of some of those workers in those
22 maquiladoras, I think a little more progress can
23 be made. But, you know, that came over the
24 border, just like your ag burning went the other
25 way on certain days. So we all have a lot to do

1 on this subject.

2 But before I lose my voice I think this
3 has been an interesting dialogue this afternoon,
4 particularly to an old air quality guy.

5 MS. ALLEN: Thank you very much to the
6 air quality panel. Moving on to water, we have
7 Art Coe from the Regional Water Quality Control
8 Board in the San Diego area. Art is the Deputy
9 Executive Officer of the Board.

10 MR. COE: Good afternoon. I, as at
11 least one of the other speakers did, find myself
12 in the position of recognizing just by being here
13 a brief time this afternoon that a lot of the
14 things I'm going to mention have already been
15 touched on. So I'm going to move through what I
16 have to say fairly quickly.

17 First I need to explain the Regional
18 Water Quality Control Board is a State of
19 California agency. The San Diego Regional Board
20 has a jurisdictional area consisting of the
21 watersheds that drain to the ocean from the
22 Mexican border to a little bit north of Laguna
23 Beach in Orange County.

24 So, as such, -- and we are a regulatory
25 agency that has regulatory authority in

1 California, but we do not, obviously, have
2 regulatory authority in Mexico.

3 We do have interest and concern with
4 projects that occur in Mexico because in our
5 region the hydrology of the border area is such
6 that most of the water drainage is into California
7 in the San Diego region.

8 So what I'm going to do today is just
9 very briefly go through some of the water quality
10 impacts that can come out of energy production and
11 transmission facilities, with the recognition that
12 if these activities occurring in California, and
13 there are discharges of waste involved, they come
14 under the jurisdiction of the Regional Board. If
15 they're occurring in Mexico, they do not come
16 under the jurisdiction of the Regional Board.

17 First I should mention that one of the
18 long-time achievements in protection of water
19 quality is highly dependent on energy consumption.
20 And that is our sewage transmission and treatment
21 facilities. Almost all of our sewage transmission
22 facilities are dependent on energy supplies for
23 pumping. And virtually all of our sewage
24 treatment facilities are pretty high energy
25 consumers for the treatment process.

1 So, from a water quality standpoint,
2 first of all, we can't get by without energy. But
3 the production and transmission of energy also has
4 some water quality impacts that I'll touch on now.

5 First of all, in the production of
6 electrical energy, I'll mention that the most
7 common water quality impact arises from the
8 discharge of heat from conventional once-through
9 cooling water electrical generating facilities,
10 the long-standing, old-style power plants like we
11 have done in the south San Diego Bay area of our
12 region.

13 There are also some other discharges
14 associated with that type of power plant. Various
15 types of chemicals that also can have impacts on
16 water quality.

17 Again, with the conventional once-
18 through cooling water type of electrical
19 generation facilities there are water quality
20 impacts associated with both the intake and
21 discharge structures. And these impacts are
22 caused mainly by the entrainment of aquatic life,
23 as the relatively large quantities of water are
24 pumped through the power plant for cooling
25 purposes.

1 Again, in the production end, the energy
2 producing facilities, electrical energy producing
3 facilities obviously have to have a source of fuel
4 of some type. And there are potential water
5 quality impacts that come out of the
6 transportation of the fuel to those facilities.
7 Whether they be potential for spills from offshore
8 offloading of fuel oil, or leaks from land-based
9 pipelines that are used to transport the fuel oil.

10 And finally, with regard to the
11 production end of electrical energy, we are just
12 now becoming aware of some impacts to water
13 quality resulting from air deposition on the land
14 surface being carried into water courses by strong
15 water runoff.

16 Twenty years ago the effects of this
17 were pretty well masked by what we call the point
18 source waste discharges that we still had, which
19 were discharges of sewage and industrial waste
20 going into a lot of our waterways. Now that most
21 of those have been eliminated or highly
22 controlled, we're starting to look at what we call
23 the non-point source discharges. And these are
24 the waste emissions that don't come out of the end
25 of a pipe. They're from a variety of sources that

1 are largely dependent on land uses.

2 But one of the things that we are just
3 now starting to get some study results on is the
4 emissions from land surface that are caused by
5 deposition of various types of pollutants from
6 emissions.

7 Finally, on to the transmission end, and
8 I've actually kind of touched on the transmission
9 issues when I was talking about the electrical
10 generation issues. We have issues with potential
11 leakage from pipelines. And we also have water
12 quality impacts that can result from the
13 construction activities for electrical
14 transmission lines and for pipelines when they go
15 across wetland areas.

16 There are water quality impacts
17 associated with construction in the wetland areas
18 that the Regional Water Board has to deal with,
19 mainly through the administration of the
20 provisions of the federal Clean Water Act that
21 require a Clean Water Act section 404 permit from
22 the Corps of Engineers for those types of
23 activities.

24 In California the regional water boards
25 are the ones that provide the state certification

1 that those types of projects are going to comply
2 with all applicable state water quality standards.

3 Those are the impacts that I was going
4 to mention. I will point out in closing that
5 these are impacts, they are not necessarily
6 obstacles. In any kind of projects involving
7 energy, as is the case with any other type of
8 project, the best strategy is to identify the
9 potential impacts very early on in the game, and
10 attempt to deal with them as far upfront of the
11 project as possible.

12 That concludes what I was going to say
13 this afternoon.

14 PRESIDING MEMBER GEESMAN: Thank you.

15 MS. ALLEN: Thank you. A missing piece
16 of the water picture associated with energy
17 facility use is the overall area of water supply.
18 The staff group from the Energy Commission made
19 numerous phone calls to various water suppliers in
20 the San Diego region, as well as the Imperial
21 Valley region. And we were not able to secure a
22 confirmation from people who would be able to
23 talk. So that's an area where we need to do more
24 research looking towards the upcoming report that
25 will be published in 2005. It hasn't been

1 forgotten as part of the picture.

2 Moving on to the final speaker listed on
3 the agenda, Bob Ham confirmed that he would be
4 here representing the Imperial County
5 Intergovernmental Relations Group, but it looks as
6 if he hasn't been able to attend. Is there anyone
7 else from Imperial County here that would be
8 taking Mr. Ham's place?

9 It looks as if we have had the final
10 environmental speaker.

11 I have one item that I'd like your help
12 with. We've got this map as a handout on the
13 table. And as I'm working with Energy Commission
14 cartography team, trying to keep track of existing
15 facilities and new projects that people are aware
16 of, we would appreciate any additions that you'd
17 like to tell us about, or any revisions or
18 corrections.

19 So please get in touch with me at the
20 Energy Commission or right here after the workshop
21 if you have anything you'd like to add.

22 PRESIDING MEMBER GEESMAN: I've got some
23 public comment forms. The first one is Skip
24 Froelich representing Sustainable Earth
25 Enterprises.

1 MR. FROELICH: Thank you for chairing
2 this workshop. My name is Skip Froelich. I
3 represent the Sierra Club on the SANDAG's energy
4 working group, the resources subcommittee. And my
5 comments are my personal comments, they're not
6 Sierra Club's.

7 Alan Sweedler gave an excellent
8 presentation about our transmission issues and
9 renewable resources in the east County. I would
10 just like to make a recommendation that serious
11 consideration be given to exploring the resource
12 potential very closely along the Indian
13 reservations in that area. The one typically
14 along the Laguna Mountain range north and south
15 cross over the border; and there's upwards of 500
16 megawatts, even one report has 1000 megawatts, of
17 wind potential in that area. Plus the solar would
18 be very welcome.

19 A lot of these reservations don't have
20 casinos, and they could very much use the
21 assistance from doing that. And they would like
22 to give back to our community.

23 I think what would help meet our goals
24 in the regional energy strategy, which is a
25 document that I strongly recommend everybody get a

1 copy of and follow, we have a very ambitious goal
2 for 40 percent of our energy supplies to come from
3 renewables by 2030. And half of that is to be
4 from within the County.

5 So that's my recommendation, to focus on
6 those areas. Thank you.

7 PRESIDING MEMBER GEESMAN: I think the
8 Public Utilities Commission, just within the last
9 month or two, approved a contract between SDG&E
10 and a wind farm located on an Indian reservation.

11 MR. FROELICH: Yes, at Campo and Wiapai
12 (phonetic).

13 PRESIDING MEMBER GEESMAN: Yeah.

14 MR. FROELICH: I think about 78
15 megawatts. The capacity is limited in that area
16 to about 50 megawatts right now. So, there may be
17 some need for additional capacity help in those
18 areas.

19 COMMISSIONER BOYD: You bring up an
20 issue, you remind me of an issue I thought of
21 before today about the dearth of information on --
22 or the lack of many resource assessments with
23 regard to renewables.

24 And, of course, I think north of the
25 border we're a little bit better at doing that.

1 NREL has done some work south of the border, but I
2 think we've talked in various forums about the
3 need for this border area to have a fairly
4 comprehensive renewable resource assessment done
5 so we would have a better handle on what the
6 possibilities are.

7 So, good point you raised.

8 MR. FROELICH: Thank you.

9 PRESIDING MEMBER GEESMAN: This card I
10 have is Scott Anders from the San Diego Regional
11 Energy Office.

12 MR. ANDERS: Thank you very much. I
13 wanted to thank you and the staff for an excellent
14 forum here today.

15 Commissioner Geesman, the last time you
16 were here you mentioned that San Diego suffers
17 from a curvature of the earth problem.

18 PRESIDING MEMBER GEESMAN: I still
19 believe that.

20 (Laughter.)

21 MR. ANDERS: And we appreciate seeing
22 you down here again.

23 PRESIDING MEMBER GEESMAN: You'll see
24 more of us, too.

25 MR. ANDERS: That's good, because then

1 we can scrap our efforts to flatten the earth out
2 between here and Sacramento.

3 (Laughter.)

4 PRESIDING MEMBER GEESMAN: There's
5 enough of that in Sacramento.

6 MR. ANDERS: I was pleased to hear a lot
7 of comments from other speakers and from the
8 Commission on pursuing energy efficiency projects
9 in Mexico. This is an area that the San Diego
10 Regional Energy Office is very interested in. And
11 we are encouraged by your past activities and the
12 International Energy Fund solicitation that's out
13 on the streets. We'll be attending a meeting in
14 two days probably in this same room.

15 We just wanted to make sure that that is
16 a priority. And I think as was previously
17 mentioned there's a gold mine of efficiency just
18 south of the border. And there are some barriers,
19 but I think that we can do great things down here
20 in our region.

21 So, I thank you again for coming down.

22 PRESIDING MEMBER GEESMAN: I think
23 that's right. I think that there's also a lead
24 mine there, in the sense that one of the primary
25 reasons why per capita electricity consumption is

1 as high in the residential sector in Baja as it
2 is, is not just building shell thermal efficiency,
3 which I think we can do something about.

4 But it's also because of the fact that a
5 lot of the appliances in use there are retread or
6 refurbished U.S. appliances that generally are at
7 the low end of our efficiency ratings. They're
8 pretty old. Many of them were not compliant in
9 the first place; they come from places other than
10 California.

11 And while I'd like to call some
12 attention to that problem, it's not clear to me
13 what the policy solutions to it are. And I would
14 invite you and anyone else in this community that
15 has some creative ideas there to bring those to
16 our attention.

17 We dump an awful lot of junk in the way
18 of energy termites into the Mexican marketplace
19 that I think we ought to be aware of.

20 MR. ANDERS: Thank you.

21 PRESIDING MEMBER GEESMAN: The last card
22 I have is Carl. You wanted to talk to us about
23 trading drawbacks.

24 MR. ZICHELLA: Yeah, if I --

25 PRESIDING MEMBER GEESMAN: Now,

1 Commissioner Boyd was not suggesting we trade
2 drawbacks.

3 MR. ZICHELLA: I hope not, anyway.

4 (Laughter.)

5 MR. ZICHELLA: First of all, I just want
6 to second what the last speaker just said. I
7 think this has been a useful day.

8 I would hope there'd be also other
9 opportunities to have more of a conversation on
10 some of this stuff, and more of a dialogue kind of
11 presentations than what we've had today. Although
12 I think they're extremely valuable, and I'm
13 grateful to have been part of it.

14 This is a great little publication, and
15 when I got back from lunch I took a look at it,
16 too. And I've never been a big fan of emissions
17 trading schemes because I think that they have
18 some substantial problems that are local problems,
19 that deal with environmental justice issues in
20 communities where people just buy allowances,
21 never reduce their pollution, and certain
22 communities get locked in.

23 They always tend to be poor communities
24 by and large, according to the reports that I've
25 read. And they also happen to be, you know,

1 people of color, which is, you know, a serious
2 issue that the State of California has recognized
3 we need to address.

4 In looking at this, because there are
5 big differences between how we monitor economies
6 in Mexico and the United States, we don't really
7 have all the information we need to have a cap and
8 trade system, which was the first real trading
9 system for acid rain that we adopted in 1990.
10 Which guarantees, at least, that you're not going
11 to lose a lot of ground. You have a potential to
12 make up some ground, and you won't lose ground.

13 The alternative to cap and trade is
14 baseline and trade, according to this publication.
15 And it doesn't guarantee anything. And just to be
16 doing some sort of trading scheme that doesn't
17 deliver on a promise of health benefits to these
18 communities, I think would be a terrible thing.

19 And we need to be able to make sure that
20 we're not going to create pockets of incredible
21 problems like we saw in the slides about Mexicali,
22 where, you know, potentially people would buy
23 cheap allowances in these communities, rather than
24 clean up.

25 It seems to me we have an obligation to

1 do more than that. And on the Mexican side the
2 government has an obligation to do more than that.
3 And it is a country that is perhaps conducive to
4 command and control more than cap and trade.

5 So I just want to be careful we don't go
6 down -- or excuse me, just emissions trading. I
7 want to make sure we don't go down some road where
8 we're advocating a solution to a problem that
9 actually isn't a solution at all in Mexico.

10 And I have a real bias against trading
11 because of these pockets of environmental justice
12 problems that we create.

13 One other comment is a comment was made
14 about U.S. companies -- or not U.S. companies, but
15 companies in Mexico not being subject to U.S.
16 standards. Well, I think that is a big problem,
17 and we see it in fiascoes like the Metales
18 situation in Tijuana on the maquiladoras side.

19 I do think we're not powerless against
20 United States companies that game the system.
21 Senator Feinstein was very very tough with one of
22 these power plant companies as a result of their
23 not wanting to adopt some of the more advanced
24 pollution control technologies. They probably
25 were complying with Mexican standards, but they

1 were going to be creating pollution that was going
2 to come into Imperial County.

3 So, I would say that as you bring
4 forward in your report on this, that political
5 leverage is an important tool to getting
6 appropriate behavior from American companies
7 operating in Mexico.

8 PRESIDING MEMBER GEESMAN: Okay. Any
9 other public comments?

10 I want to thank you all for attending
11 today and your participation, as well.

12 We'll be adjourned.

13 (Whereupon, at 4:00 p.m., the workshop
14 was adjourned.)

15 --o0o--

CERTIFICATE OF REPORTER

I, JAMES RAMOS, an Electronic Reporter,
do hereby certify that I am a disinterested person
herein; that I recorded the foregoing California
Energy Commission Workshop; that it was thereafter
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I further certify that I am not of
counsel or attorney for any of the parties to said
workshop, nor in any way interested in outcome of
said workshop.

IN WITNESS WHEREOF, I have hereunto set
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